University of Alberta

Effects of Learning Disabilities on Adults

by

Julia A. Nielsen ©

A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the requirements for the degree of Master of Education

in

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled *Effects of Learning Disabilities on Adults* submitted by Julia A. Nielsen in partial fulfillment of the requirements for the degree of Master of Education in Adult and Higher Education.

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Sept 30 1996

Dedication

To my daughter, Kate and my son, Dan. Thank you for growing into people I would be delighted to know even if I weren't lucky enough to be your mother.

ABSTRACT

The paramount indication of a learning disability (LD) is a decided dissimilarity between seeming ability and actual accomplishment, notably in reading, writing, mathematics or attention. As do many with these difficulties, the subjects of this study have a learning disability and/or attention deficit disorder (ADD/ADHD). Both difficulties can also have extensive nonacademic negative effects. Further, the concepts of LDs and ADD/ADHD are rife with controversy. This study investigated university students' perceptions of their learning disabilities and how the disabilities have affected and continue to affect them. Though exhibiting a multitude of disabilities, problems in academic skills, especially reading and writing, were most common. Results demonstrated that whatever the age, gender, or background, all faced many of the same difficulties related to their LDs. Those with supportive families or earlier diagnoses however, suffered fewer and less intense LD related difficulties. All subjects emphasized the desirability of early diagnosis and of general education teachers being alerted to potential LDs.

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CHAPTER I

OVERVIEW OF THE PROBLEM

Introduction

Despite lack of concurrence about causality, frequency, criteria, and remediation, there is no doubt that some people, with normal or greater intelligence, have abnormal difficulty learning or understanding some things. Once intelligence, vision, hearing, and schooling have been established as being within normal perameters, the literature indicates this lifelong extra-ordinary difficulty is often a learning disability (LD) (American Psychiatric Association, 1986; Smith, 1991). The manner in which the LD is handled can determine education, employment, lifestyle, and self-worth. With suitable accommodations, many learning disabled persons successfully pursue postsecondary and graduate studies (Adelman, O'Connell, Konrad, and Vogel, 1993). This study investigated university students' perceptions of their learning disabilities and how the disabilities have affected and continue to affect them.

Research question and subquestions

Review of pertinent literature indicates a likelihood of LD university students having both similarities to and differences from the general adult LD population; in the effects of their disabilities. On that basis the research question posed was:

How does having a learning disability affect adults' lives, and how do they and others deal with their disability and its effects?

1. What negative effects do Edmonton university students view their LD as having?

2. By what means do the students deal with these negative effects of their LDs?

3. Do they perceive that other ways of dealing with their LDs would have been beneficial?

4. If the students view their LDs as having positive effects, what are these effects?

Student volunteers were solicited through the University of Alberta's Program for Students with Learning Disabilities (PSLD). Three interviews were then conducted and audiotaped with each of the eight volunteers. Interviews were semi-structured, using a researcher designed guide. Volunteers were free to opt out at any time, though none did.

The thirty interview guide questions, based on areas of concern found in the literature, were grouped into the eleven categories following, structuring the study:

The Participants,
The Learning Disabilities,
Academic Effects of LDs,
Means of Dealing with Academic Difficulties,
Professor Cooperation,
Social Difficulties and Means of Dealing with Them,
Important Factors Leading to Being at University,
Earlier Teachers,
What Would Have Helped,
Positive LD Effects,
Why Did You Participate in This Study; Did You Benefit?

Statement of Significance

Among many learning disabled adults at university, reading and writing continue problematic; some read none or little until university. In the general population, the high number of adult Canadians who, if they read or write at all, do so at less than the grade 5 or 6 level (Kater,1993) is both puzzling and disheartening. These people have understood and spoken either English or French since childhood, they are at

least normally intelligent, and they have no sensory impairments such as deafness or blindness (Karassik,1993), or if they do, the sensory impairments are not causing the slow reading skills. One explanation for their low literacy may be a learning disability.

Today s information-based economy requires a functional literacy level for even unskilled, minimum wage jobs (Elkind,1990). With few exceptions however, people need at least high school reading and writing ability to effectively compete in the current employment market. Though people with low literacy skills may learn to cope with and hide their inability, the impact on their self esteem and their employment is considerable (Kaeter, 1993).

With suitable accommodations, learning disabled persons, even those recently illiterate, are able to complete postsecondary and graduate studies (Adelman, O'Connell, Konrad, and Vogel, 1993). In increasing numbers, they are doing exactly that.

Delimitations

Data were gathered by interviewing learning disabled student clients at the University of Alberta's Program for Students with Learning Disabilities (PSLD). These were volunteers, for whom English was either their first language or

one learned in the first two years. Their main language of instruction had been English throughout their academic careers.

Limitations

Due to temporal, feasibility, and financial constraints, data were gathered from one site. This may limit generalisability to the broader learning disabled population. Generalisability to speakers of other than English first languages also may be limited.

Assumptions

Prior to PSLD admittance, students had undergone a minimum six hour assessment battery, including standard academic intelligence instruments.

1. As they have been admitted to the campus PSLD, the researcher assumes that participants have normal or greater measurable intelligence.

2. The researcher assumes participants answered questions truthfully.

Definition of Terms

Given the lack of consensual definitions in studies of learning disability, the author has chosen from various sources,

definitions of key concepts. It is hoped these are adequately both broad and specific.

Learning Disabilities

> . . . a heterogeneous group of disorders manifested by significant difficulty in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities. These disorders are intrinsic to the individual, presumed to be due to central nervous system dysfunction, and may occur across the life span. Problems in self-regulatory behaviors, social perception, and social interaction may exist with learning disabilities, but do not by themselves constitute a learning disorder. Although learning disabilities may occur concomitantly with other handicapping conditions . . . or with extrinsic influences . . . they are not the result of these conditions or influences (Moats & Lyon, 1993, p. 284).

Attention deficit disorder

> . . . a persistent pattern of inattention and/or hyperactivity-impulsivity that is more frequent and severe than is typically observed in individuals at a comparable

> level of development . . . present before age 7 years . . . present in at least two settings . . . clear evidence of interference with developmentally appropriate social, academic, or occupational functioning . . . is not better accounted for by another mental disorder . . . (Diagnostic and statistical manual of mental disorders, Fourth Edition, 1994).

In Chapter two, relevant literature addressing LD manifestation, controversy over labeling it as such, postsecondary services for LD students, and ADD/ADHD is reviewed. ADD/ADHD is included under a separate heading as it often accompanies specific learning disabilities, though it is not considered by all to *be* one.

In chapter three, the methodology used to conduct this research is discussed. Included are techniques used, the sample interviewed, and the manner with which ethical concerns were dealt.

In chapter four the results of this study are presented in both pooled and individual contexts.

In chapter five, the author's discussion of the study, with implications and recommendations are presented.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

Notwithstanding etiological controversies, a sizable minority of the population has more than usual difficulty with procedures that most adults take for granted (Norton & Falk, 1992). For some people the difficulties are primarily academic, and may be a specific learning disability (LD). Depending on many factors, including type and severity of the difficulty, learning disabilities may become evident as early as elementary school or as late as adulthood. Despite research inconsistencies, it is evident there are people who have more than usually "unique ways of gathering information from the world around them" (Hartman & Krulwich, 1983, p. 1).

Selikowitz (1993) notes that although there is no proof of brain damage as cause, a relative is likely to have the same specific LD. Bell (1991) narrows it to at least one parent showing a similar deficit, though earlier family and twin studies often did not distinguish between dyslexia and simply poor reading (Just & Carpenter, 1987). In Davis et al's 1992 study, Christine had a family history of learning disabilities, as well as

a good deal of left-handedness and ambidexterity. She is a clear example of Orton's (Vellutino, 1987) hypothesis concerning lack of cerebral domination as either a cause or predisposing factor. Regrettably, interesting as Christine's case is, it *still* leaves us without a universal underlying cause. Just & Carpenter (1987, p. 365) suggest that there are multiple causes and types of LD. They cite Rutter (1978), who posits an unknown physiological factor exacerbated by environmental ones:

> . . . some basic problem that leaves a child at risk for reading difficulties. But whether the risk translates into dyslexia depends on these other environmental factors, such as the quality of schooling, the family characteristics, and the reader's personality characteristics.

As to the possibility of minimum brain dysfunction (MBD) as a cause, Just & Carpenter (1987) observe that 1) the symptom pattern may be subtle enough that a diagnosis is likely to be circular. (That is, reading problems would be seen as evidence of MBD and MBD given as explanation for reading problems); 2) many dyslexics have no sign of neurological problems; and 3) it is not useful in considering remediation. Be that as it may, this perceptual breakdown typically results in "profound stress" (Kronick, 1988) for the dyslexic.

Persons with learning disabilities are by definition (Moats & Lyon, 1993) of at least average intelligence. They *may* be exceptionally bright--Albert Einstein and Leonardo da Vinci figure prominently as likely having been learning disabled (Richardson & Stein, 1993; West, 1992). Regardless of whether one's measurable intelligence is closer to 100 or to 200 however, the LD "interferes with [the] ability to store, process, or produce information," to a degree ranging from relatively mild to severe (Whyte, Vosahlo, and Kovach, 1993, p. 4).

Samuel Kirk, a special education professor, introduced the term 'learning disability' in 1963, saying that earlier designations such as 'brain injury' or 'cerebral dysfunction' offered no guidance for teachers or parents (Biller, 1988; Franklin, 1987). More than fifty years after Strauss and Werner began studying the phenomenon, and more than twenty after Kirk defined the term, the etiology dissension continues, though current thought does appear to favour heritability rather than injury as cause (Murphy, 1992; LD Association of Canada, 1991; American Psychiatric Association, 1986).

LD Manifestation

The overriding manifestation of a learning disability is a distinct contrast in apparent ability and achievement. At school, these students, even in elementary grades, may be seen

as "puzzles," as a "contradiction in terms" (Murphy, 1992, p. 21). They are often seen as lazy, unmotivated, not living up to potential. Murphy (1992, p.21) quotes a subject, "When I was little I had a big vocabulary, was extremely verbal and inquisitive, and asked lots of penetrating questions all the time. Then I'd go to school and fail. I couldn't figure that out."

Compounding their literacy or numeracy difficulties, LDs are often disorganized, lack time management skills, are easily distracted, and listen poorly (Selikowitz, 1993, Whyte, 1989). Whyte notes that they may not check their written work, or recognize errors even if they do check it.

Bell (1991) posits "Gestalt imagery--the ability to create imaged wholes--[as] a critical factor in oral and written language comprehension. A person with weak gestalt imagery may . . . process 'parts' rather than 'wholes' from verbal stimuli, spoken or written" (p. 246). And of course "each cognitive skill or ability is based on previous learning" (Crux, 1991, p. 6). It is no surprise then that many LDs "avoid failure by avoiding challenges" (Selikowitz, 1993, p. 37), that they may withdraw or lack perseverance.

Reiff, Gerber & Ginsberg (1993) reported that interviewees, despite eventual financial and academic success, felt hampered by their LDs, emotionally diminished by earlier academic failures. Nevertheless, they observe that:

> Many interviews [sic] indicated that, in one way or another, learning how to deal with learning disabilities provided the foundation for *success* (present author's italics). Indeed, many of the subjects felt they were more determined, resilient, goal-oriented, and creative because of their learning disabilities (p. 121).

As distressing as school is for many learning disabled persons, for some, employment situations are worse, being more, "varied, unpredictable, and ambiguous . . . " (Murphy, 1992, p.116). Persons may be discouraged, finding it hard to use strategies that may have worked in school. Because they need help, or alternative ways to do tasks, some tell employers about their LD. Others wait until they feel secure in the job or run into a problem. Or they may simply leave the job, as some do for example, when promoted and confronted with significant paperwork (Smith, 1991). Understandably, frustration is a common experience, as is poor self-esteem (Miller & Cabell, 1989; Adelman & Oufs, 1986; Upton, 1989) and a higher than average unemployment rate (Malcolm, C. B., Polajko, H. J., & Simons, J, 1990).

> Now in even traditional jobs:
>
> Workers face re-training, multi-skilling, job redesign, and an increasing complexity of tasks, most of which require the use of written texts . . . .even unskilled workers

spend over an hour a day reading at work (Norton, M. & Falk, I.,1992, 188).

Kaeter (1993, p. 31) observes that, "people who read at the grade-school level will be unable to perform all but a handful of jobs", echoing both Selikowitz's, 1993, p. 8) concern that academic skills are increasingly important in a "highly competitive employment market", and Elkind's (1990) warning that the overall orientation in information increase has led to decreased employability of people with low literacy skills. Nearly a decade ago, Sollod (1987, p.25) cautioned, "Many jobs, which themselves do not require reading and writing skills, are awarded on the basis of written applications or competitive written tests."

Controversy about naming/labeling

Moats and Lyon (1993, p.282) characterize LD as being "one of the least understood but most debated disabling conditions, . . . [there being] contentious disagreements about definitions, diagnostic criteria, assessment practices, teaching or intervention procedures, and educational policy."

They further cite the diversity of disciplines--with their corresponding perspectives--that are involved in some aspect of LD as the primary reason for the definition and remediation incongruence. The situation seems little changed from

Anastasi's (1982, p. 478) observation of the "wide individual difference in theoretical orientation among specialists . . . ." To this end they have defined a learning disabled person as, "an individual with inefficiencies in learning in the absence of any visual, hearing or motor handicap, as well as in the absence of mental retardation or primary emotional disturbance . . . " (Moats & Lyon, 1993, p. 3).

This closely corresponds to Selikowitz's 1993 definition of an LD as "an unexpected and unexplained condition, occurring in a child [sic] of average or above average intelligence, characterized by significant delay in one or more areas of learning" (p.4).

Those who are adverse to the practice of labeling or naming the difficulty have a number of concerns (Kloska, 1989; Murphy, 1992; Searfoss, 1994; Sleeter, 1987). One of the primary concerns seems to be the lack of diagnostic consistency (Rosenberg et al, 1993; Upton, 1989; Whyte, 1989; Wright & Groner, 1993). Indeed, this inconsistency was corroborated by many of Murphy's interviewees, who stated that they were diagnosed because they happened to be at the "right place at the right time with the right person," e. g., a new counsellor with LD knowledge, a teacher with an LD child, or a teacher who had seen a television show about learning disabilities (Murphy, 1992, p. 27). Therefore, many students endure "years

of academic frustration . . . " (Murphy, 1992, p. 25), going undiagnosed until they reach postsecondary studies (Vasahlo, private communication), *if* they finish high school.

Moats & Lyon (1993) stress the need to "establish precise definitions . . . identify different types of learning disabilities . . . recognize the distinctions and interrelationships between LD and other childhood [sic] disorders" (1993, 283). Just & Carpenter (1987) point out that the difference in operational definitions may also be attributable to the use of different subject groups, and whether LD is considered a single condition or an umbrella term. Although concerned only with one LD, i.e., dyslexia, they speculate that different types of language dysfunction may even be stages of the *same* dysfunction. Presumably this would generalize to learning disabilities in other areas as well.

Just & Carpenter (1987) go on to note that establishing a single operational definition is further complicated by the decision of whether to use an inclusionary or exclusionary definition. Nor is it clarified by researchers using different terminology for those generally accepted. Davis, Bryson, and Hoy (1992, 70) for instance, use the term "language disability" for dyslexia. Klein, Moses, and Altman (1988) do not even tell the reader what disability it is their subjects *have*. It becomes clear that Elkind's (1990) observation that definition

incongruence underlies the lack of consistency in data is an understatement.

Amidst this confusion, some critics understandably maintain that naming or labeling is political (Sleeter, 1987), and that it "perpetuates a restrictive, person-blame interpretation of school failure." Others are concerned that labeling "exacerbates the stigma . . . " (Murphy, 1992, p. 6). They may be justifiably concerned with a student's devaluation at being put into a separate class, as resource rooms often combine students with a wide range of difficulties, needs, and capabilities.

There is also understandable concern about possible stigma with a link with emotionally disturbed & criminal populations (Dinklage, 1991; Richardson, 1994).

Further, there may be parental objection at the label causing decreased self-esteem, particularly if parents and others confuse learning disability with retardation (Adelman & Wren, 1990). Even if their child is diagnosed, they may hide the results from the child. An obviously resentful adult subject who had failed in college related this experience:

> I'm having a very hard time coming to grips with the fact that my mother took me for testing [in elementary school] but she either didn't find out the results or didn't want to find out the results; so I was

> never informed. I was never told I had a learning disability. Apparently, someone along the way said I had a high IQ, and my mother felt because I had a high IQ I would do fine if I persevered. It would have been a lot more emotionally settling to know what the hell I was persevering for, or why I had to persevere. That's the emotionally scarring part, if there is any. What did I have to do this for? And why the hell does it take me so long [to do things]? That's difficult. (Murphy, 1992, p. 28-9).

In 1991 The Learning Disabilities Association of Canada went so far as to state that identifying people with learning disabilities is a *prerequisite* to implementing "effective teaching strategies to help meet their individual learning needs" (p. 1).

Commingled with the aforenoted concerns, relief is a frequent response to LD classification (Adelman & Wren, 1990 ; Dinklage, 1991; Klein, 1993; Learning Centre -Calgary, 1992). Murphy (1992, p. 34) explains the relief as being "an official explanation of who they were and why they acted the way they did." Naming or labeling the problem may help people to begin dealing with a lifetime of feeling they were not fulfilling the educational expectations set by themselves, or their parents, school, or teachers (Siperstein, 1988). Murphy (1992, p. 35) states that one subject "was relieved to find that he was not to

blame for his poor grades, and that despite them was still officially considered intelligent." As Dinklage (1991) notes:

> Making sense out of the dyslexic's experience doesn't rewire the brain and eliminate the problem, but it can lose its shameful, nightmarish quality and be brought down to human scale where it is simply something to cope with (p. 22).

Many people not diagnosed until adulthood feel they should have been diagnosed sooner. "One individual felt somewhat bitter that his disability was not detected sooner, believing that detection might have helped his high school performance and increased his college options" (Murphy, 1992, p. 25-6).

For a few affluent people like Pompian & Thumb's (1988) Dartmouth students, the LD label *ensures* private schools and tutors, and cultural enrichment. As was the case for Biller's subjects, these enhancements, "combined with continuous educational services from first grade on, has resulted in an extremely high career success rate, even for those boys that were noted as having . . . severe language disabilities" (Biller, 1988, p. 57). It may be worth noting, however, that these privileged groups of students also had mean full-score IQs of 122 and 123, respectively.

Postsecondary LD Services

Despite the political argument mentioned, Murphy (1992) states that:

> . . . to succeed in college, people need the LD label . . . managing academic requirements is a chore for LDs, as some formal institutional procedures--such as larger classes, increased reading, and relatively little classtime--worsens problems and decreases LD students' autonomy (p.75).

Students are often lacking insight into their weaknesses *and* their strengths. " . . . this key component of independent learning needs to be considered as we provide learning strategies instruction for college students with learning disabilities" (Bursuck & Jayanthi, 1993, p. 178). But first the student must be assessed and have a formalized LD diagnosis (Brinckerhoff, Shaw, and McGuire, 1992; Kovach, Vosahlo, and Whyte, 1993).

So the label may indeed be political, but without it no accommodations are accessible and the student has little chance of completing even an undergraduate degree (Michael, 1987). Furthermore, increasing numbers of LDs are likely to pursue graduate studies. Graduate-school admissions are becoming increasingly flexible- the "entrance examination to medical and law schools, the medical boards, and the bar exam are now available in a format with modified examination

procedure for individuals with [diagnosed] LDs" (Rose, 1991; Vogel, 1993, pp. 7-8).

What LD Student Services Do

With somewhat different wording from one campus to another, LD student services generally:

> develop and administer programming and support services which will assist these students to acquire strategies that will lead to more effective and independent learning skills, and ultimately to successful completion of course work and degree requirements (Whyte, Vosahlo, and Kovach, 1993, p.2).

Additionally, LD services may increase campus awareness by using university publications, such as the calendar and student and faculty newspapers, workshops, information sheets, and videos, to disseminate information about learning disabilities and services offered by the service (Vogel, 1993).

For students *with* prior diagnoses, LD Services may also act as liaison with high schools, cooperating in long-term planning. A transition counsellor would monitor "course selections, assistance in self-advocacy, arranging for appropriate accommodations, and on-going goal setting" (Brinckerhoff, Shaw, and McGuire, 1992, 420).

For the many students *without* prior diagnoses it becomes necessary to determine both type and degree of the LD, student concerns about the effect on a postsecondary career, and requirements of courses in the student's planned academic program. To achieve this, the diagnosis--considering a variety of factors--is done. It typically starts with a case history--including assessments of the student's intellectual and sensory--both hearing and vision--capabilities, processing strengths and weaknesses, and developmental, educational, and family histories. (Adelman & Oufs, 1986).

Following the diagnosis, staff and the student collaborate in developing an individual education plan including goals, accommodations, any auxiliary aids or assistance needed, and remedial work (Adelman, O'Connell, Konrad, and Vogel, 1993; Mellard & Byre, 1993). The latter may include individual or small class instruction in reading and/or mathematics, classes or workshops in study skills, assertiveness, self-advocacy, and computer use (Whyte, Vosahlo, and Kovach, 1993).

What LD Student Services Require of Students

As increased student autonomy is the overall goal of this service (Bursuck & Jayanthi, 1993; McWhirter & McWhirter, 1990), the student is expected to be an active partner in the program. There is typically a limit stipulated on the length of

time a student will use the service, though *ad hoc* assistance remains available (Vosahlo, personal communication).

Because *students* are best equipped to identify themselves and discern their own specific educational needs (Biller, 1988), sometime shortly after the education plan is created, the student--often in a formal contract--agrees to assume specific responsibilities, such as committing to class attendance and beginning self-advocacy. Students must be able to explain their learning disabilities and their needs to their instructors, although initially student services staff may accompany and assist them. *Students* are expected to take responsibility to ask for accommodations. They should meet with faculty early in the term to discuss the accommodations and aids they need such as extended test time or format modification, recorder or scribe. (Brinckerhoff, Shaw, and McGuire, 1992; McWhirter & McWhirter, 1990).

LD Services at the University of Alberta

When Services for Students with Learning Disabilities began the Program for Students with Learning Disabilities (PSLD) at the University of Alberta in 1986, York University was the only other Canadian University offering such a service (Vasahlo, personal communication). At University of Alberta, the service accommodates about 40 students--from most

faculties, including graduate studies--yearly. The service operates on the premise that, "an effective program is one in which instruction will serve to diminish the impact of the presenting handicap on future learning or enable the individual to function more adequately " (Brinckerhoff, Shaw, and McGuire, 1992, 425). Though operating year-round, programs are reduced May-August, instructors then being unavailable.

Identification

The relatively few students with prior diagnoses may be referred by their secondary school counsellors or their families. Most students, however, have no earlier diagnosis, and may seek the service when they have serious academic difficulty. Some self-refer, others may be referred by an alert friend or faculty member.

Once they have contacted the service, students undergo an intake screening. This comprises an interview and questionnaires concerning their current difficulties, history, career goals, and employment experiences (Yerian, 1993).

If screening indicates the likelihood of a learning disability, a comprehensive assessment, including an in-depth interview and a battery of standardized cognitive and achievement tests, is administered. The tests are both financially and temporally expensive, so the student signs a

a contract to participate in the program, if an LD is confirmed. This may not be an easy decision for all students, as they may also be dealing with psychological problems--especially whether or not to reveal their disability--sometimes associated with formal remedial programs.

If the tests do indicate the presence of a learning disability, the student signs another contract. The student and PSLD staff then design and begin implementing an individualized education program, addressing areas of strength and weakness, and desired program outcome.

Arrangements may be made for accommodations such as parttime study, important where departmental requirements or student financing are an issue, a quiet dorm room, or study carrel.

Though PSLD offers instruction in writing, reading, and mathematics skills as needed, the academic skills class is a compulsory one hour weekly session (Kovach, Vasahlo, and Whyte 1993). In these academic skills classes, students are taught:

- to become self-advocates by communicating with their professors,
- a variety of exam taking techniques,
- to identify their learning styles,
- listening and notetaking skills,

- memory enhancement,
- term paper organization,
- study skills,
- time management.

Maybe most importantly, they learn to understand their learning disabilities and how to work with and around them.

Average length of regular involvement in the PSLD is two years, with frequency of attendance gradually decreasing and autonomy increasing. After this time students generally do not attend PSLD classes or workshops, and use the services only as needed. While PSLD staff continue to support and challenge students, students increasingly assume responsibility for their own success. By that point, it is to be hoped that they are, "not learning disabled students with their identities forever tied to what they could not do. They were [sic] students with learning disabilities, with many abilities and some problems or differences" (Thiessen, 1987, p. 113).

ADD/ADHD

Lack of congruence in LDs generally, also permeates Attention Deficit Disorder, with or without Hyperactivity (ADD/ADHD). Overall, the literature suggests these conditions are not LDs, as presently defined. Schools however, do generally consider these to be LDs. In either case, the

conditions certainly hinder learning and often accompany specific learning disabilities.

Both conditions are often evident in childhood, even infancy. Infants are often characterized as whiny (not the usual teething or rash fretfulness), sleeping little and fussing much. Young children may show intense but short-lived interest in toys *and* people. ADHD children especially, are often ostracized by their peers. These children, having little awareness of others' perceptions of them, may be seen as bossy, even aggressive. Researchers have noted that in adolescence, hyperactivity often decreases, though attention & impulse deficits persist. For most, ADD/ADHD are lifelong, with unusually high incidences of problems with relationships, depression, and self-esteem.

Because children with attention deficit are at risk for academic problems and antisocial conduct, the difference in outcome may be whether and how their disorder is recognized and dealt with in childhood.

Near the beginning of this century, Dr. George Still posited a biological cause (Barkley, 1990). By the 1920s, researchers pointed out that behaviors of children with encephalitis (following influenza) included decreased attentiveness with increased hyperactivity and impulsiveness. Not surprisingly, by the 1930s such symptoms were deemed the

result of some brain injury, however minor ((Kane, Mikalc, Benjamin, and Barkley, 1990). In the following decade this softened somewhat to minimum brain dysfunction (MBD), which concept persisted for decades; today we know that less than five percent of ADD is caused by brain injury (Lubar, 1991). As with specific learning disabilities, heritibility seems to be the key; ADD/ADHD people usually have one or more near relatives who also have these disorders ((Barkley, 1990; Bellack & Black, 1992)).

As early as the mid-1930s researchers noted some of the inattentive youngsters seemed less rather than more aroused than their peers. By the 1970s it was clear that there were several different childhood disorders that needed to be dealt with in more detail, among them hyperactivity and attention disorders.

Whether they are diagnosed or simply considered disruptive, lazy, or troublemakers, most ADD/ADHD children *know* they are different from other children, and they know it isn't a desirable difference. For those without diagnosis and treatment, adolescence, with all the usual blows to self-esteem exacerbated, can be a nightmare (Bellack and Black, 1992; Goodwin and Corgiat, 1992; Guevremont, 1990). People with ADD/ADHD have more than three times the high school dropout rate of the general population and adults are usually

under employed for their level of intelligence (Hechtman, 1989). They suffer an overall higher rate of psychiatric and social pathology (Barkley, 1991; Biederman, Faraone, Spencer, Wilens, Norman, Lapey, Mick, Lehman, & Doyle 1993; Kane, Mikalc, Benjamin, & Barkley, 1990). Many turn to various drugs (Cocores, Patel, Gold, Pottash, 1987) including alcohol, for comfort, and the suicide rate is also higher than for others. For both adolescents and adults, the incarceration rate is considerably higher (Ratey, Greenberg, Bemporad, & Lindem, 1992). The tragedy is that so many people who *could* be helped are not. First they must be diagnosed. With diagnosis and treatment, persons with ADD/ADHD can learn to help themselves and lead normal lives (Mannuzza, Klein, Bessler, Malloy & LaPadula, 1993).

Regrettably, diagnosis and treatment of the disorders is not simple, the former largely because of lack of criteria consensus, and until relatively recently there were no specific assessment tools (Barkley, 1990; Kane, Mikalc, Benjamin, & Barkley, 1990). Often diagnosis involves a great deal of interviewing, of family history and medical histories, and possibly medical examinations. However, because ADD/ADHD people have different brainwave patterns than others, an electroencephalogram (EEG) can now be used to confirm a tentative diagnosis.

> Barkley (1990) states that ADD shows itself as: significant problems with attention, impulse control, and overactivity . . . [in a] heterogeneous population . . . [who] display considerable variation in the degree of their symptoms, the pervasiveness across situations of these problems, and the extent to which other disorders occur in association with it (p. 3).

Douglas, however, maintains that hyperactivity is immaterial to the definition, saying that attention & impulse deficits are more important. Her model for ADHD stipulates:

> (1) deficits in the investment, organization, and maintenance of attention and effort: (2) inability to inhibit impulsive responding: (3) inability to modulate arousal levels to meet situational demands; and (4) an unusually strong inclination to seek immediate reinforcement (Barkley, 1990, p. 14).

Either way and appearance notwithstanding, current hypotheses suggest that people with ADHD experience low rather than high arousal. This is the justification for what is still the most common North American therapy, psychostimulant medication such as Ritalin and Cylert, despite sometimes inappropriate prescription and inadequate monitoring (Barkley, 1990). Even for those who benefit, longterm negative effects are unknown. Among the broad

diversity of practitioners it is increasingly thought that ADD and ADHD are best treated multimodally, drawing from more than one discipline (Barkley, 1991). Another treatment, becoming increasingly popular, is neurofeedback.

In those with attention deficit, theta waves prevail, there being relatively little beta activity, compared with non-ADD/ADHD people of similar ages. Slow-wave theta is typical during daydreaming, while fast-wave beta occurs during active mental processing (Lubar, 1989). Most people are aware of whether they're mentally relaxed nearly to drowsiness or whether they are alert. Those with ADD/ADHD are generally not aware of the difference in the two states (Lubar, 1991). They can however, learn awareness and can learn to approximate a normal state, exercising more control over their thinking and their actions.

In this form of biofeedback, the use of equipment to monitor physiological systems (Alle, 1982), an EEG using electrodes attached with a conductive paste to various sites on the client's head, measures and records brainwave patterns (Basmajian, 1989; Miller, 1989). The procedure is not painful and the electrodes do not penetrate the skin. Electrical current is a one-way transmission: *from* the client to the EEG, by way of the electrodes (Lubar, 1991).

One or more waves are displayed on a computer monitor, the client choosing from a variety of formats for this display. Sounds from small speakers also alert the client, by changes in tone, to his or her accuracy in approximating earlier determined perameters, and the trainer gives occasional quiet verbal reinforcement. As learning continues and the client becomes more skilled in reducing the amount of slow-wave theta activity, thereby approximating normal brainwave patterns, perameters are gradually set at more challenging levels.

Because of costly equipment, neurofeedback is expensive (but often covered by medical insurance or service agencies) and relatively new, but Lubar (1995, p.521) eloquently advocates its use thus, "this technique, which leads to normalization of behavior, can lead to normalization of neurological dysfunction in the ADHD child and can have long-term consequences for academic achievement, social integration, and overall life adjustment."

Summary

In summary, it is clear that both specific learning disabilities and attention deficit disorders are inundated with controversy. It is evident that LDs are lifelong and ADD/ADHD generally is; likewise, both have a tendency to run in families.

The controversies include lack of universal definitions, nonconcurence on cause and treatment, and whether people experiencing these difficulties should be told they have a learning disability.

Both difficulties have academic, employment, and social outcomes, there being higher school dropout, underemployment, and incarceration rates than in the general population. Increasingly however, people having LDs and ADD are completing postsecondary studies. For them to succeed at this, LD support services are often necessary, one LD hallmark being the discrepancy between achievement and ostensible ability.

CHAPTER III

METHODOLOGY

Introduction

To address both negative and positive effects of a learning disability, thirty interview questions were composed. These examined in detail the research question and subquestions; some addressed more than one subquestion. The research question and subquestions, with relevant interview questions (Appendix A) in parentheses, were:

How does having a learning disability affect people's lives, and how do they and others deal with their disability and its effects?

1. What negative academic and social effects do Edmonton university students perceive their LD as having? (4-8, 12-15, 18, 23, 25, 28-9).

2. By what means do the students deal with these negative effects of their LDs? (9-11, 19, 20, 24, 28-9).

3. Do they perceive that other ways of dealing with their LDs would have been beneficial? (1-3, 20, 22, 28-30).

4. If the students view their LDs as having positive effects, what are these effects? (4, 16-7, 28-30).

Guide question 21 was administrative and number 27 was designed to offer further insight, though not specifically answering a subquestion.

Participants

Participants were four each female and male postsecondary students, currently or recently involved with the university's PSLD. A notice having been posted at PSLD, and verbal notification having been given by PSLD staff to students, these eight volunteered and were accepted, after the purpose and time involved were explained. One other person volunteered after some while, but time conflicts precluded inclusion.

All volunteers either were using or had used PSLD services. At the time of interviews, most volunteers were at the point of using only such PSLD services as examination time extensions. With the exception of one graduate student, all were senior level undergraduates.

They represented a range of disciplines, including education, business, physical sciences, mathematics, and social sciences.

Materials

The audio tape recorder used was a Sony TCM-354V. To facilitate transcription accuracy, a portable tape player Sony Radio Cassette-Corder CFS-W505, with earphone was used during playback.

Interview guides (Appendix A) were used to ensure all interest areas being included. Guides were compiled by the interviewer after extensively searching relevant literature for areas of concern, and in consultation with her supervisor.

An explanatory letter (Appendix B) to potential volunteers was compiled by the interviewer and posted at the PSLD office.

A standard consent form (Appendix C) was read by, discussed with, and signed by each participant, at the initial interviews.

Various rooms at the PSLD centre were used for the interviews, unless all were in use, as sometimes occurred during examinations or classes. In those cases, interviews were conducted in the researcher's office in the Faculty of Education.

Procedure

At intervals over the months prior to starting research, the researcher spoke several times with the PSLD Director about the proposed research. In the course of these

discussions, PSLD services and programs were discussed. The paucity of information concerning LD adults and about the feasibility of the proposed research were also discussed The director expressed confidence in obtaining interviewees from PSLD clients, offering to post a call for volunteers and PSLD office space for interviews.

Three interviews were conducted with each of the eight participants. The first interview was an introduction both to the interviewer and to the intended research. Taping protocols were also established, using verbal requesting and granting of permission to audiotape. The first interview was somewhat more structured than the second and third, to address issues on the attached interview guide (Appendix A). Subjects were again explained the purpose of the research and their parts in it, and the non repercussive nature of their opting out, before they were asked to sign forms indicating informed consent (Appendix C). During second and third interviews, new areas were addressed; prior interviews were clarified, and validated by interviewees.

As this is a guide and often interviewees covered issues in their conversations, it was not always necessary to ask a given question. The guide was presented in interview rather than questionnaire format to reduce any stress LD students may have in dealing with printed material. Chapters four and five,

showing the reading difficulties of all subjects, leave no doubt it would have indeed been stressful.

To ensure anonymity, tapes and transcriptions were coded with pseudonyms throughout. Further, tapes were kept in a locked file cabinet to which only the researcher has a key.

After introducing the interviewer and the research and reaffirming anonymity, signed informed consent was obtained before proceeding with questions. These questions are based on areas of concern repeatedly encountered in the literature. Their relevance was substantiated by consulting Murphy (1992) after preparing the guide.

In the second interview questions or thoughts that may have been elicited by reflection on the first were discussed. The first three questions elicited brief answers with little or no need to revisit them. Numbers four through sixteen sometimes required probing or cueing for richer detail, though often a nod or verbal commiseration, or a laugh, set off surprisingly lengthy talk. Participants were quite forthcoming in all interviews.

The final interview gave subjects further opportunity to elaborate or to change their responses and to ask questions. Though it had been anticipated this would be the briefest interview, it rarely was. Subjects were then debriefed and closure effected. When all interviews were complete, hand-

written notes of thanks to each interviewee and to PSLD staff were sent.

Data Analysis

Interview guides had been designed with consideration for eventual grouping into categories relevant to the research subquestions. Researcher transcribed responses were numbered according to overtly or implicitly evocative questions. The numbered responses were then assigned to large groupings corresponding to one of the subquestions. These large groups were subdivided into naturally occurring categories. Data were examined for idiosyncratic answers as well as for patterns and commonalties in the subjects' answers.

As noted elsewhere in this report, subjects were from diverse backgrounds and experience. Similarly, they are affiliated with various disciplines. It is notable that their responses were similar both to each other and to concerns evidenced throughout the literature. This will become apparent in individual and pooled data in Chapter IV.

CHAPTER IV

RESULTS

Introduction

In West's (1992, p. 127) discussion of ostensible LDs like Einstein and da Vinci--non normal by *any* standards--he speculates that other dyslexics share with them "a varied mix of traits consistent with a larger pattern of verbal difficulties." Many of these traits appear repeatedly in the literature, regardless of the specific LD. Despite average or even superior intelligence, LDs are often considered lazy, unmotivated, inattentive, and intellectually deficient (Just & Carpenter, 1987).

This is especially true for adults with undiagnosed LDs (Thistlethwaite, 1983, Hartman & Krulwich, 1983, Morris, 1991, Whyte, 1989). The resulting low self esteem and self blame for failures may result in emotional problems, even aggressiveness (Selikowitz, 1993; Learning Disabilities Association, 1991; Just & Carpenter, 1987). The Learning Disabilities Association of Canada goes so far as to say "No . . . program can be fully effective unless it provides the individuals with some insight into their problem" (1991, p. 5). Subjects of the present study

were provided such insight, predicated on their diagnosis assessments. For all but one subject these diagnoses occurred in adulthood.

The Participants

All eight subjects were asked to give brief verbal sketches of themselves; they were also asked how typical of learning disabled students they considered themselves. As explained in Chapter III, subjects were invited to answer from the vantage of someone who knew them well, rather than in first person, if they preferred. Because the answers were often fragmented or repetitive, this section gives synopses of them, with researcher observations. It should be noted that although four of the subjects volunteered their ages, none was asked. To preserve anonymity, ages both known and researcher estimated are given approximately; physical details are given in generalities.

Betty

Betty was a woman in her mid-thirties with young children who, by Betty's account, also have learning disabilities, as does her husband. She considered herself typical of PSLD students, saying, "we're not working to our ability", noting many LD students have poor self-esteem and are "frustrated because [they are] trying hard, but not getting

results. She also asserted that, "most have good social skills, try to listen, be there [for each other], and empathize."

When asked for a verbal self sketch, Betty began with her appearance, then moved to self characteristics, such as her persistence and pride in her accomplishments, "I'm proud of myself", only mentioning her LD at the end with, "it's part of me, but I don't consider it a really big deal." "Everybody's got difficulties; mine are in areas that affect my learning." She also declared that she likes being with people and is fortunate in having an excellent support system.

Bill

Describing himself as sensitive, caring, and hard working, Bill further deemed himself a good father and husband. He said he considers himself shy, but said, "That's ok; it's just unique and being yourself. I guess I've accepted myself." Though Bill declared himself to be, "not a decision maker; more of a follower," he noted, "I'm competitive, I do not like to lose."

Bill expressed concern that, "I keep thinking that I have these thoughts, that other people don't have. I keep thinking everything has to be tied to the LD." Expressing a high anxiety level and tendency to "quite often go into a state of depression," and being more than usually "conscious what other people think of me," he said, "when I'm relaxed I'm a totally different person"

In relating the rather remarkable achievement of having completely paid for his house by his mid-twenties--before university, he was a multiply-qualified tradesman--he bemoaned feeling that his "past achievement isn't important, only the next ones." This feeling of inadequacy is a theme much reported both in the literature and by these subjects.

Like most subjects in this study, in his late-thirties, Bill reported still being actively involved in sports, and credits it with being the reason he stayed in school long enough to earn his high school diploma. "I felt like I was a loser when it came to academics; sports was my forte and I wanted to succeed at least in that particular part."

Jean

Like Bill, Jean also continues her high school sports, crediting participation both with keeping her in school and broadening her concept of the world; as a girl in an isolated community, Jean traveled to athletic competitions. "Because I did well, I got more praise and attention . . . ; it kept me in school." "I saw things beyond my community, where I was growing up."

From a child and adolescent who rarely spoke at school, this multilingual woman has become a person whose "voice has gotten louder; I've learned how to use it." "I want to help kids like myself", that is, those with disabilities, from minorities, or

from dysfunctional backgrounds. She has already begun this work, speaking to high school students who are at risk of leaving school. As she said, "I have many talents, am enthusiastic about life, and like to be with people, like talking. Today I'm feeling really good."

Asked if she was a typical student with LDs, Jean declared, "I'm just like everybody else", adding however, "My social skills are good, better than some." And indeed, as will be apparent, Jean has relied on and developed her social skills for most of her life. In enumerating the many roles she fills, Jean cited being "a mother, student, sister, a person that works, a good friend." She declared herself caring, an outgoing optimist, active and fit.

Kevin

Though Kevin no longer uses PSLD services, like Jean, he considered himself "pretty close to typical of those who do . . . but some don't seem to relate very well with others." Like others with LDs, Kevin said he attributes any imperfections to his LD, and is "quite surprised when I do well."

Kevin began his self sketch with his physical appearance--all the male subjects were about six feet or more--and quickly moved into self characteristics and aspirations. His sketch was especially eclectic, covering aspects of his intellectual: "enjoys his culture and other cultures"; esthetic: "learn to sing better";

spiritual: "enjoys spirituality"; emotional: "loves affection", "hard on himself"; recreational: "loves water . . . swimming or kayaking or anything"; and possible political life: "would like to be involved in politics." Only at one point in mid-sketch did he refer to his LD, with, "He's got a little problem with math." Then he moved immediately into his love of water and of music. The composite is of a man in his late twenties, joyously involved with most of the large and small pleasures life offers, whose two most immediate foci are creating a solid marriage with a compatible mate: "wants to get married . . . needs someone strong who can tell him to smarten up", and finding and developing a satisfying career: "wants to have a career, wants the best for himself."

Lori

A woman in her early twenties, Lori described herself in virtually all self characteristics, alluding in passing to her "very bad memory", near the end of the sketch. Mostly she discussed her social nature and leadership: "fun jobs", likes and dislikes, and family: "I love my parents dearly." She finished the sketch with evidences of her determination: "I'll get my degree", and, "I have enough ambition to go after anything I need."

Asked how typical she was of LD students, Lori was the only female subject who directly indicated she was not: "I think they're putting academic success higher than I am maybe; I'm

happy just getting through." But, "I don't want to be the stupidest person in there; I don't need to be looked at like 'you dumb dodo'." She observed that some PSLD students seem bitter about their LDs and their school experiences. Despite an overt light-heartedness: "I want to have fun, more than anything else", Lori evidenced much thought in ordering her priorities and life. This was shown in statements such as: "School is important to me, but it's not my life", and, "If I die tomorrow, I don't want to regret anything."

Mark

Mark described himself as an early-thirties male who is "in university right now; doing exactly what he wants to be doing. He is very motivated, very determined to get his degree. He likes himself, and thinks he's going to make a difference." He went on to speak of being an humanitarian, who focuses on the positive. He admitted that he "likes catching people off guard at times, and likes having fun and being active." "I think he'll do good things in his own right; he's gonna be ok."

Like Lori, Mark did not consider himself a typical LD student: "I'm not typical at all. I'm motivated, self-determined, there's my age, and I have a lot of experience. I'm determined not to be held back. My assertiveness sets me apart from most students, especially LD students."

He also ventured, "I'm beginning to suspect my lack of passage comprehension is fairly universal . . . . I think learning disabilities are a lot more prevalent than people think; I think there's a lot of people that have difficulty with certain things, and learn to compensate."

Ned

Having had childhood diagnosis and support, Ned had a number of unique perspectives on the issues of early diagnosis including, "I wish there was a book on ADD . . . [it would have been] helpful for me", and separate schooling for students with LDs. Ned said he used PSLD services his first year in graduate school, though no longer, except sometimes for accommodation. This multilingual man in his mid-twenties gave most of his verbal self-sketch in terms of self-characteristics. He touched on his appearance twice, his preferred working styles: "in groups . . . likes to be challenged", and his undergraduate and graduate degrees, with interests arising from both. Despite the degrees being in very different disciplines, he said he plans to consolidate these interests in his career, and has begun that process. As for long-term plans, "Money would be nice, but it's not my goal; . . . paint, travel, draw, the whole works."

Considering himself "a positive person for other people", Ned mentioned his LD in passing, near the end of the sketch with, "I wasn't considered dumb."

As with most of the male subjects, Ned considered himself atypical of LD students, "I found that I wasn't (typical). I do my assignments way ahead of time, continue working on problems." He then commented further on this, addressing issues of both late diagnosis and early diagnosis but with segregated schooling. "A lot are aggressive. They don't let you talk; they don't listen to learn. Many are socially inept because of segregated schooling, with no art or sports, and the gender disparity."

Terry

This woman in her mid-twenties verbally sketched herself entirely in self characteristics, many, e.g., "social butterfly", "can have a great time", related to a high degree of sociability. "I hope that people think I'm pretty cool and nice to be around."

In addition, she reported, "Creative is one [characteristic] I've heard quite often. Some people would say stubborn, and always trying to be independent." Terry said however, than although others may see her as independent, "I am very dependent in many things; people don't see those fears, those insecurities." She also said her friends know she "will stick by you, as long as you need someone to stick by you."

In speaking of varied opportunities Terry declared, "I'm starting to realize that this is the way I am in one sense and this is the way I can be in another sense. I desperately dislike the idea of stagnating."

Asked to reflect on how typical she is of LD students, Terry maintained, "There's such diversity; very few fit the stereotype I found before." "LDs don't look any different, they don't talk any different, they don't sound any different." "I can't say I'm totally typical, 'cause everyone is very different." She further considered, "all [to be] basically open, talking. I don't believe the older students communicate as much."

The Learning Disabilities

This section, in pooled and individual data, sets out the specific learning disabilities of the subjects in this study, and some of their experiences related to these. It also identifies when all were assessed, and the incidences of family LDs. As later sections elaborate on both academic and social effects of the disabilities, they are given only briefly here.

Three of the females and all four males reported having reading and/or writing difficulties. One female and two males also said they have difficulty with mathematics. Two females and two males stated they have difficulty with attention or ambient noise, while one female and one male described

problems with memory. Four subjects remembered being tested as children, though by what means was unknown; in three cases there was no followup. Only one person related continuing support through elementary and secondary school. Seven of the eight subjects were diagnosed at university, as learning disabled, Table 1.

Table 1. Specific Learning Disabilities of Subjects

	reading and/or writing	mathematics	memory	attention or noise
females	3	1	1	2
males	4	2	1	2

Because LD diagnosis is relatively new, no one's parents had been diagnosed, though many reportedly did not complete or even begin, secondary school. In some cases this seems to have been because of economic necessity, though others are not so clear. Most subjects, i.e., all four females and two males, were of the opinion that at least one other immediate family member also has a learning disability. In some cases their siblings or children or extended families had been diagnosed.

The perceived worst negative academic and social effects of the LDs were as individual as the subjects, but appeared to relate directly to the specific LDs. Various everyday reading and

writing situations were by far the most often stated negative effect. These included reading greeting cards, reading books to children, filling out forms, recreational word games, and job choices.

Betty

Betty reported her specific LDs are in reading and writing, and ambient noise, diagnosed in her second year at university, when she asked for a diagnosis after one of her children was assessed. As she said, "With my [child] being labeled, came help." Betty also described other possible, though undiagnosed, family LDs, such as one of her parents who attended grade 12, but failing English departmental examinations, did not graduate. Betty remembered this parent helping her write a high school essay, "and I failed it." Betty noted that this parent refuses to discuss any of the family having learning disabilities, speculating, "I think she's ashamed of it." "I think [the parent] has trouble accepting that I went farther in school."

Like Betty, in a crowded room or on the telephone with a nearby television on, she reported her sibling cannot hear people if there is "a lot of noise in the background." Said Betty, "My [child] has the same types of difficulties as my [sibling]." Her other child "is really hyper . . . we'll try medication."

Bill

Bill described reading and ambient noise as the LDs with which he contends; "I wish someone would pinpoint the term 'dyslexic' or whatever." Like most subjects, Bill was diagnosed when a mature student at university. "I read my first book [three years ago], first book of any kind. I was so proud; I actually read a book."

Bill stated that he had spoken only briefly with his parents about his LD. He feels that one parent is likely LD. He recounted an incident when that parent was "asked to do some reading [at church], . . . could not do that." Bill said that was one of numerous occasions of reading avoidance. Bill related the same parent showing sympathy for Bill's difficulties, "I do get encouragement every day." According to Bill, the other parent, "thinks this LD is an excuse . . . , lack of intelligence."

Jean

Jean related a cluster of LDs, reading, writing, short term memory, and spelling, made more difficult by extremely poor vision. She indicated having been frustrated and embarrassed in situations "when people assume you can read and write . . . . I feel I'm forced to tell them that I can't read this as fast as you want me to. I don't think people realize how devastating that can be."

Jean also was not diagnosed with LDs until, in her late thirties, she came to university, and "was relieved and devastated at the same time." She explained the relief being, "because they told me that people who have learning disabilities are often above average in intelligence and have an area where they really excel at." Her avowed devastation being due to, "[having] no idea except the same ones everybody else out there had; learning disabled people are slow and worthless and stupid and dumb."

Of four siblings, Jean speculated that one, though not tested, likely is LD; emotional problems and substance abuse however, reportedly confound this. Of Jean's two grown children, one has been diagnosed with writing and reading problems like her own. The other, from Jean's testimony an excellent reader, "hasn't got a clue about math", nor anything to do with numbers, including phone numbers and addresses.

Jean said one of her parents has learned in recent years to read, commenting that economic necessity and family duty had resulted in completing only grade four as a child. Jean expressed pleasure in this parent's having achieved high school equivalency and various skilled employment certifications: "Considering where she's come from, I think she's done extremely well."

Kevin

Like most subjects, Kevin reported dealing with difficulties in several areas, in his case "dyslexia, short term memory, attention, and math." Though tested as a child, he was told he "only needed to study harder", so there was no academic support. He was ultimately diagnosed at university. Kevin noted his LD has resulted in his feeling like, "I'm ten years behind [his peers]."

Kevin also wondered aloud, "if sometimes I'm not in that category [ADHD]. I went to talk to . . . about the [therapeutic] program; I'd love to do it, but it's a lot of money." [A counsellor] "thought had I done it last year or last term . . . . "

Kevin expressed no knowledge or speculation of another family member having an LD.

Lori

Tested in childhood, there was no followup to either Lori's LD or her giftedness indication: "I think the main thing was, that I was so social, that I liked being with everybody. That was important to me . . . and so [her parent] didn't want to segregate me off." She remembered one of her parents asking if she was interested in either support or gifted programs; Lori was not, and was permitted to make the choice to remain in mainstream classes. "[Her parent] thought . . . keep me out of gifted, but keep me out of the resource room, . . . [parent] would

just help me along. And . . . did." Lori said that at university, a friend suggested she might benefit from PSLD, where she was subsequently diagnosed. "Then I asked my [parent] about it and . . . said, 'Well yeah, if it would help you out at all. I'm sure they'd let you into the program 'cause you definitely would have them'."

Saying that her main deficits are in spelling, mathematics, attention, and "not really understanding a passage", Lori maintained her primary concerns relating to her LD are, "not learning like most other people do" and "always trying to get around things."

A near relative has much the same diagnosed difficulties as Lori, as does one of Lori's parents. Lori laughed as she told how she and that parent mis-spell words the same way, and are often the only ones who can discern what the other has written.

Mark

As with many LDs diagnosed as adults, Mark was given specification of the difficulty, rather than an overall label such as dyslexia. In Mark's case, "It's on many levels--reading, time restrictions, word attack." In addressing the inadequacy so many people with undiagnosed LDs feel, the feeling often of guilt that simple things are so difficult for them, Mark said, "Since finding out I have an LD it's become easier to let myself off the hook." But, "One thing that bothers me is that though I

comprehend the information, that does not come out in my marks."

Mark related no immediate family LDs, and observed he was not aware of any in his extended family as, "There hasn't been extensive contact with lots of family members."

Ned

Ned reported that the physician who assessed him told Ned that, "Auditory information doesn't get to the correct brain site." As well, Ned has difficulty with mathematics and with writing in all languages in which he is conversant. "I'm paranoid about writing in front of people."

Ned said he did not speak until nearly kindergarten age, though seeming to understand what was said,. According to one of his parents, with whom the researcher spoke on the phone, he then spoke age-appropriately. Ned declared himself to have been hyperactive as a preschooler, "I wasn't mean hyperactive, I was just hyperactive", and said he was briefly medicated with one of the common stimulants prescribed for this. Because this resulted in extreme lethargy, "I was like a vegetable", the medication was discontinued; hyperactivity spontaneously disappeared in his early school years: "I kinda just outgrew it, I don't know why."

Ned reported an aunt who is a professional and learning disabled. Ned was unsure whether one of his parents is LD,

said parent having left school very young; this was however in wartime Europe and may have been economic necessity. "I don't know if [parent's] learning disabled."

Terry

Terry related that, "I went through a lot of EEG tests in . . . junior high, because I would do things that were kind of habits, and I'd forget to stop. [On cueing] I'd stop, but then I'd forget." On the advice of a friend, Terry was diagnosed in third year university. "When they told me I had a learning disability, I said, 'no way', I didn't believe them. I'm starting to believe that, yeah, maybe it's possible that I have one."

Her one sibling was diagnosed in secondary school, and "is very highly intelligent." Terry speculated that one of her parents, who reads little and with difficulty, may have an LD. "I'm pretty sure my [parent] does, although he was never diagnosed . . . may have *some* ability to read." Terry's LD has been diagnosed as difficulty in reading, though not given a name: "I'd like a name for it."

For Terry, the most negative effect of her LD is "the frustration of not being able to pick up on information quickly." "Why is it that I have a learning disability and someone else does not?"

Academic Effects of LDs and Means of Dealing with Them

One female and three males said they had either been held back a grade or would have been but for parent or teacher intervention. Not surprisingly, the difficulties all had then are the same difficulties they still experience, despite being either third or fourth year undergraduates, or in one case, a graduate student. Until becoming involved in PSLD, many took classes reported to be easier, avoiding ones in which they had interest but were concerned they would fail.

Though many subjects no longer use PSLD services, or use them only for such accommodations as extended examination time, all professed to use strategies they had learned in PSLD. Such strategies include both direct study skills, e.g., focusing, skimming, associating new knowledge with that already known, and self discipline such as attending all classes and sitting in front. In all means of dealing with the negative effects, it is quite possible subjects not counted also use these means. However, only those specifically stating they use them were counted as using them.

Most subjects said they enjoy sports or artistic expression as part of their lives. Two also engage in forms of explicit relaxation, that is, meditation and progressive relaxation.

All generally reduce their course loads, with half dropping courses when they deem it necessary. Professor attitude or teaching style was the usual reason given for dropping, though one person who said she finds understanding unfamiliar accents difficult, drops them on that account.

Half reported using tutors, friends, and family for help with subject matter and they have someone to proofread their papers. Proofreaders were usually friends, parents, or spouse. Interestingly, no one mentioned asking a sibling to proofread work.

All declared they disclose their disabilities to their professors, though not all do all the time; as they become more adept at using study strategies, most exercise discretion about disclosure. When subjects do disclose, they emphasized it must be done early in the course, preferably the first day. This also permits time to drop the course, should the instructor respond negatively.

Three subjects were unequivocal about having avoided courses they found difficult in the past or of which they were otherwise apprehensive. "I pick and choose the spots in my areas, my strong points. And I shy away from those . . . that expose problems." In contrast, two subjects deliberately confront their disability, though not necessarily in coursework.

Betty

Like so many LD students, reported Betty studying long hours with little result or understanding; "I didn't have a clue, but I killed myself trying to get those kinds of marks." Even before she knew she has LD, Betty said she approached instructors, asking them how to improve her marks, "how I could make it better; lots of times I got really good feedback."

"Being involved with PSLD is a good thing. They know what it feels like to work hard and get a bad grade; they can empathize."

As a science student she finds it useful to put an explanation beside chemistry drawings, "give him more than what he actually asked, so that way he knows that I actually know the theory behind what I'm doing."

Bill

Bill reported that taking lecture notes is problematic for him; he misses words, loses attention during long lectures, and is frustrated by brief overhead times. When writing papers, he said he finds he often omits the endings of words or even entire words. And he said of himself "I'm not a self learner", preferring structure and specific expectations. In speaking of his embarrassment at having an LD, Bill bemoaned, "I'm almost 40 years old and it's *still* haunting me."

As Bill asserted, he does not enjoy losing; to ensure he wins, he uses many strategies. As with Betty, Bill expressed his good fortune in having a very supportive spouse, to whom he gave repeated credit. He emphasized especially her willingness to not only proofread his papers but manage their home and children; "We're a good team."

As far as study strategies, Bill uses earplugs to help him concentrate; "I can't have any noise whatsoever." From study skills classes, he has found it is not necessary to read entire texts, or even paragraphs; but those parts he reads, he reads slowly, to enhance his comprehension. As much as possible, he avoids courses in which he fears he will do badly, dropping classes immediately if the professors evidence negative attitudes at his disclosure.

Trying to be as independent of accommodations as he can, Bill has rarely asked for extensions on papers or projects, preferring to set time limits on himself--"the best I could in that amount of time." He has found maintaining a minimum fulltime course-load crucial; "I tried four once but I could not quite pull four courses." He also finds daytimers "just don't work for me", preferring calendars that show a month at a time.

Jean

As with many LD students, Jean regretted having, "studied lots, got poor marks." So poor that she was required to

repeat a grade in junior high school, which she said was "devastating." However, eventually this woman got through two years of university studies having "never read a book, magazine or newspaper."

Now that she has been reading and writing for two years--and sometimes enjoying it- she still fears writing for classes. She said she finds multiple choice examinations very difficult, and dreads "writing on demand, including forms."

In her earlier schooling, "I bluffed a lot, but nobody picked that up." In high school she reported quizzing her friends about books to be read for book reports: "I synthesized it, but I never read the books."

Like other successful senior students with LDs, Jean acknowledged using a variety of strategies. "I took advantage of everything PSLD could do for me." And on their advice she said she went for counseling early, "because I would be so upset I would cry in front of the class. I never got the mark I wanted: I wanted to be perfect." Because of her near blindness, Jean uses a reader and belongs to groups providing large print and taped books. "If I can see it, I can do it. Or if I hear a word, I remember it."

Despite being multilingual, Jean reported difficulty with some inflections and drops classes when she can't understand the professor's accent. "So I registered again until I got

somebody I could understand." She said she also sits in the front row, is well-organized, listens, does the readings, and uses the PSLD strategies --"It makes learning a whole lot easier." Further, she uses a tutor and friends proofread her papers. "Today when I get my mark, I don't even think about being an LD anymore."

Kevin

Kevin reported reading and writing being problems in all his classes; he said the most difficult aspect of this is, "reading a text to make up a paper." He also voiced there being, "self doubt, always." In high school Kevin "took easier courses . . . . I can't even remember what we studied", and when possible worked with others on papers.

Now, not surprisingly for one with so many interests, Kevin said he uses a diversity of strategies to deal with his LD. "I try a little bit of meditation", and self motivation.; he also "keep[s] focusing on my own energy."

Directly confronting some difficulties, but away from class, "I try to read journals and try to become more familiar with names." "I force myself to read something, more and more books." "I try to write a diary and things like that to help with writing skills." To help with his mathematics problems, he said he has a tutor and asks friends for help. "If I can visualize a person, fine. Like, I can read with maybe five actors or five

people, and so I can figure it out." He also does this with more abstract concepts; "I visualize the writing of the chemical . . . I just kind of look at the word, scan the word, and memorize that sequence of letters."

He stressed attending all lectures and though he does still disclose to professors, "I've mentioned it with discretion, it depends on the course." As he said, it is not always necessary.

One unique strategy Kevin uses reflects his sports involvement: "I train my eye to move faster . . . I treat the brain a lot like muscle groups and I work out."

Lori

In high school Lori "would make up books instead of reading them", and cheated to get acceptable marks "I used to cheat all the time in math, always." "I had so many ways to cheat it was sick. I never got caught once." In her final high school year, Lori said she changed schools, selecting one where it was "more acceptable to study." Maintaining she no longer cheats, she does try to "get around anything I can," and admitted she completely avoids university mathematics courses. As with many people with LDs or not, avoidance has been a frequent tactic: "If I know I'm going to fail at something, I don't want anything to do with it. I was afraid of these things; I still am."

Using strategies from PSLD, Lori said she now meets her professors at the beginning of classes and before midterm examinations; she also "always had daytimers", skims text material, and attends all classes. One of her parents--not the one with Lori's same mis-spelling--and her friends proofread her papers. When connecting the spelling of words to prior knowledge is not effective, Lori asks friends how to spell the words. "I always ask people how to spell things; they just laugh and tell me." "My friends know that my first draft of a paper is a disaster; and usually I get one of the them to fix it up for me."

When possible Lori chooses classes with regard to professorial style: "I know I'll do better, I'll go more because of that." "Why be somewhere where you're not going to succeed?"

Mark

Mark was held back a year early in elementary school, though it was in French rather than English; "There was too much turmoil in my life after awhile." "My teachers liked me; I respected them. I remember teachers being frustrated that I wasn't getting it. And that made it worse 'cause I wanted their approval, wanted them to like me." Mark explained that mathematics and sciences have been special problems for him since early grades, and continue to be. "Stats last term, I passed; it was a lot of work for that." But "it's so much easier

when I'm an adult, it is. I know myself better; I know who I am."

Of the means Mark named for dealing with academic difficulties, it is difficult to discern if one is more important than the others. Two tools he eagerly demonstrated are self-replicating paper for note-takers, and a talking dictionary; "It saves time and frustration, as different from a conventional dictionary." He also receives government funding predicated on his LD.

Ned

As above indicated, Ned said "I have problems writing", and intensely dislikes public writing. "Even if I know how to write it, I'm *paranoid* of that." In his judgment, he also reads slowly. "It takes longer; I'm always behind." Mathematics, "I had a lot of problems with math", likewise continues to be a problem.; "When I deal with a lot of numbers and abstract number thinking, it's a lot more difficult [than fine arts abstract thinking]."

In his earlier schooling, Ned used resource rooms, but for a time in high school, "beat around the bush, wasted class time."

Like many other subjects, Ned related an array of means for dealing with academic difficulties. Because he needed mathematics for his graduate program, he retook advanced high

school mathematics: "I did math 30. I received in the mail the advanced diploma, four years after I had already gotten a university degree." Concerning a mathematics course in his first year of graduate school: "I redid the course and I did very well in it. I got a 7, so I was very happy, and it was a good mark."

Focusing on PSLD strategies, he advised, "Reduce your course load." He also "studies a certain way for a certain mark", and "always had my assignments completed on time or earlier." He reported he tells professors about his LD "the first day of class"; "and if they're negative to you right then, drop the course."

Though he said one of his parents often helps him with assignments, Ned also "bounces ideas off people" and works "really hard." He "[tries] to not let the LD dominate [his] life."

Terry

Because reading and understanding the reading "would take me more time", in high school and early university, Terry "went for the easier things; I hate being a failure." A science student, she indicated she now chooses them for their interest and applicability to her major: "I'm starting to learn that not everyone who tells me it's difficult necessarily knows [the discipline]."

Terry admitted "My standards are lower"; "If I think it's going to be very difficult, then what I'll probably do is instead of saying, 'Well, I'm not going to get a hundred percent on this', I'll try to get through, . . . expecting to pass." Using PSLD strategies, she said "talking it out" is useful for her. She "studies more effectively than previously, doesn't worry as much, associates material with a word or picture, and really concentrate[s]." And "If I need a tutor, fine, I'll correct that. It's my responsibility to." Like many students, Terry had found, "putting in hours and hours of studying, without effective strategies" nonproductive.

Professor Cooperation

Generally, subjects indicated their professors had been willing, even eager to permit them the requested accommodations. Several people noted that when they disclosed, professors often told them about their own LD children. Regrettably, this cooperation was not universal.

Subjects reported negative responses such as that by one education professor who accused the student of "just trying to get an edge on everybody else," and another who, in a required education course, reportedly teaches students that LDs do not exist. In another discipline, one academic asked, "Why are students with learning disabilities coming to the university?"

One subject reported difficulty with the first professor to whom he disclosed, acknowledging it was his own error for waiting too long.

All subjects however, in different words, echoed Bill's observation that most professors, "bent over backwards to help me," and Terry's sentiment that, "They're usually so eager not to offend." As Jean remarked, "Some will come right out and say 'I know nothing, help me, teach me'."

Betty

While praising most of her professors for their support and accommodation, Betty became quite agitated remembering that, "At least one prof in education teaches that there is no such thing [as LD]; it's inexcusable." This theme was repeated; that is, all subjects were grateful for the understanding of *most* of their professors.

Bill

Bill's perception of his professors' cooperation was generally laudatory, "Most are very understanding . . . ." He did, however, give several instances of non-cooperation, saying "Others would do everything they could to make sure you didn't succeed." He spoke of one class in which he asked the instructor not to require his going up to board for presentation; he felt she was unfairly critical of his papers as a result. He also considered that, "Foreign profs aren't as accepting of LD. I

hate to say that, but it's true. I think because of their [more traditional] upbringing and education."

Jean

Despite her experience with some professors who "will say 'no, you just do what it says'", Jean said, "most have been really good with accommodation." She related, "Others will say 'Oh yeah, I've had a lot of students that have this problem; what's yours and what can we do about it? How can I help?'" "And others say, 'So what; do what the rest of them do'." "A lot of the professors are very attuned, very helpful."

Kevin

Kevin claimed to have had "all positive" experiences in his disclosures to professors. He attributed this in part to, "some of them hav[ing] their own LD kids." "I did well one year; I got those eights."

Lori

Despite some negative experiences, Lori declared most professors "go out of their way" to accommodate. She did however, tell of recently encountering difficulty in a required course, the professor disavowing the existence of learning disabilities. Lori related she was accused of "just trying to get an edge on everybody else." In telling of an experience with another instructor: "I think he called me stupid once." Despite these incidents, Lori insisted that, "All but those have been

great about it, just great. Now I'm in the program, profs are much more understanding; they don't think I'm just being lazy or slacking off."

Mark

With one exception, Mark praised his professors for their "total sympathy; I haven't had any problems."

The exception was an instructor in Mark's department, who on disclosure asked, "Why are students with learning disabilities coming to the university?" "It was quite obvious he thought that learning disabilities meant not being smart enough to handle it. I can't believe he just said that. It was like I don't belong here."

Ned

Saying he "had problems with the first prof [he] spoke to", Ned acknowledged he waited too long. Despite a "big argument with one grad prof", he noted the undergraduate professors to whom he disclosed were very accommodating, many having LD children. "If I've got a problem, I talk to them about it."

Terry

Saying that although others have told her about "really bad profs", Terry related her experience having been that "they're usually so eager not to offend." "One of the greatest profs I've ever had, when I told him I didn't quite understand this concept, would stop every couple of minutes and make

sure." "I think if anyone has a problem with it, it's how is this going to make my teaching experience more difficult?"

Social Difficulties and Means of Dealing with Them

Probably because the social difficulties that subjects had encountered are similar to academic ones, the data indicate the means taken to deal with them were also for the most part similar. Subjects confronted, avoided, disclosed, compensated, and relied on others when needed.

Betty

As Betty related, she and her husband are mutually supportive. Regrettably his birth family has been as lacking in supportiveness as hers; Betty grimaced as she recounted how they told her she would fail at school.

Because "I can't remember what I have to do for the day." Betty reported using a strategy familiar to many -she writes it on her hand. When asked about using a daytimer, she said it is not useful for her, as she forgets to look at it.

Bill

Compounding Bill's LD is a stress-exacerbated, i.e., "when I'm really nervous", minor speech problem of which he is painfully conscious; "I try not to participate." Because "you don't want your disability discovered, you just avoid those

situations if you can." Bill related how this extends even to reading his children stories and silently reading greeting cards.

He told of being nervous that people may notice the time it takes to read a card: "I keep thinking they're going to think negative things about me . . . thinking they're better than me, think I'm some kinda creep or something." On the researcher suggesting most people were likely only interested in the cards *they* were reading, Bill declared he is "going to start reading the cards." And like many parents, with and without LDs, when his children ask questions to which he does not know the answer, rather than admit that, Bill said he tells them to ask someone else, in this case, "Ask your mother."

Bill also shared an earlier memory: "My biggest fear in getting married was having to do the groom's speech . . . I just fell apart." Despite admitting his friends have told him, "It was the best speech ever, 'cause it was from the heart", he insisted friends are "only trying to make [me] feel better." Though he acknowledged, "There were lots of people crying, and it *was* right from the heart."

Like many sensitive people, Bill indicated, "If I'm really stressed, I go back into my shell again; I'm not a changed person."

Jean

"I never read a newspaper, magazine, book, nothing [until third year university]."

Jean told of asking for help at the public library, explaining her difficulty; she had difficulty using the library catalogue. She said the librarian took considerable time to help her, asking and using Jean's preferred learning methods. "Now when I go there I can do it myself", which she does, finally having and using a library card. She now has read complete books--"an incredible feeling."

"I never had a job where I had to write." Even as a salesperson, "I had somebody read them through and I'd memorize them [contracts]."

Jean said she also asks for help in filling out forms, though reluctantly because as she said, "I look normal so people assume I can do as others do." "People don't understand, they just, 'Are you an idiot?'"

Kevin

Kevin recounted how as a youngster, he dealt with the feeling of inadequacy common to many people with LDs by associating, "mainly with kids who didn't have a lot of scholastic achievement."

He declared he is "self conscious" and has problems speaking in public. He said he also misunderstands and forgets

instructions, and that he is often "too intense in processing of an environment or situation." One absorbing concern was that this "limits what relationships you can have and how deeply." At work, he told of finding it difficult to follow technical instructions without having them on paper to consult.

To help moderate his intensity and deal with potential misinterpretation, Kevin said he sometimes discloses his LD, so friends can alert him. He also related the continued importance to him of sports: "I feel when I run sometimes . . . I feel conscious that I've cleared myself, and that's the part I love about running . . . ."

Lori

"In high school I went overboard [being social], because I knew I was good at this, that I could be good at. In school I couldn't."

"My friends are really good about proofing my work and giving me help. I ask them how to spell everything--they know that's just something I do." If Lori is at all chagrined about this, it was not evident to the interviewer; rather, it may act as a social catalyst.

Mark

From childhood, "I was very active in sports", which Mark said have resulted both in friendships and in finishing secondary school. His reading and spelling difficulties have

resulted in a dread of "mispronunciation in public" or mis-spelling words, the result being Mark does not play Scrabble or other word games. They "cause anxiety." As to other negative social impact, "I can't think of anything. No, on the contrary, I'm very hypersensitive to issues getting in the way of my relationships."

Ned

Ned maintained that until age twenty he "always focused on school", where he also had sports and art, both more than usually important to him. He admitted to "a problem being places on time . . . That's something I'm really working on." He said that earlier in social contexts he "didn't take the initiative in anything."

Now however he affirmed he often takes the initiative, noting, "I don't have problems dating, haven't had problems with stable relationships." To aid in pronunciation, he wears an earplug. It was pointed out to him however, that although he wore it at none of the interviews, there was no indication of pronunciation difficulty.

Ned told of using avoidance as a strategy, specifically in dealing with his fear of public writing--he avoids it. He said he simply has not considered jobs requiring public writing.

Terry

Terry "assume[s]' that every single person who ever sees me, likes me immediately and I would never do anything at all to make them dislike or avoid me." Saying that she "can be wordy" and "I don't know exactly what I'm going to say until it's out there", she also said she uses words "a little bit unusual because I don't have a big vocabulary." "You've done it all your life, so how do you know if it's affected you or not?" She maintained this is part of her spontaneous personality.

Expressing some ambivalence, Terry said she does not try things that seem difficult for others, despite being "daring, if it's a short period type of thing."

She also enjoys "speaking to people I haven't talked to before. Just because it's kinda neat, it's interesting."

Important Factors Leading to Being at University

Asked what factors were most important in their being at university despite having learning disabilities, subjects identified both common and idiosyncratic factors. Five subjects said a parent was a major component, though one of these was a removal; that is, a parent seen by the subject as disapproving moved away. The subject reported her grade point average subsequently increased more than two points on a scale of nine.

Four subjects specifically cited such characteristics as their own persistence, determination, and intelligence. Three attributed the support of their friends to attempting and attaining university admittance, and both married subjects credited their spouses with emotional and practical support. Other factors such as self betterment, good teachers, and economics were limited to one or two responses.

Betty

Asked about the most important factors leading to her being at university despite having an LD, Betty said she had been fortunate in having some good teachers both in high school and in college. Also, she credited herself, for having "learned to be more persistent, tenacious, assertive, and an advocate for [her] husband and [her]self." Her husband was also seen as a major factor. Betty also reported the negative factor of the aforementioned parent moving away, following which Betty's GPA improved considerably

Bill

Asked the most important factors in his being at university, Bill told of many interrelated ones, overall being a feeling of dissatisfaction, of inadequacy. "My education was the one thing in my life I wasn't satisfied with . . . wanted to go into something that I could be satisfied with . . . could give

back to humankind." Closely related was, "to see if I could do it", a theme repeated in various forms by other subjects.

More than balancing the negative influence of a relative, to whom he felt inferior ("thinks of me as a lower person"), was the encouragement of his wife ("I guess my wife gave me the push too") and the desire to be an example for his children. "As a father you try to set high standards for your kids." And directly reflecting his earlier school experiences, "I wanted to know if they taught teachers to identify kids with learning problems; . . . they all say no."

Jean

Acknowledging that, despite being "a sponge; I want to learn", university would not have been possible in her previous relationship: "For me the divorce was the best thing that ever happened in my life. I mean, it was the most wonderful thing."

Of an ethnic organization for whom she now works parttime Jean said, "They believed that they could see something that I didn't; they could see the potential and they encouraged me. I never even thought about going to school until, 'We'll pay you to go to school'."

Kevin

Having grown up in a single parent family, Kevin nevertheless credited both his parents, though primarily his custodial parent, with being major factors in his being at

university: "wanted me to go to university . . . encouraged me." Further, he acknowledged his siblings' influence on him. "We pursued things that were perhaps of a higher social status, or just knowledge, actually."

He freely credited both friends and personal contacts, observing that in the last several years he has "dated progressively more self-directed women." He noted their influence has not been primarily "direct encouragement, just their own example", especially their confidence, assertiveness, and focus on their goals.

Similarly, Kevin told of a man he knew in childhood, whom he considers a mentor. He said this person worked diligently, completed university in maturity, married later yet, and to young Kevin seemed serene and in control of his life.

Lori

The most important factors in Lori's being at university despite a learning disability were voiced in various ways by many other subjects: "to prove it to me, that I could do it if I wanted to". Further, Lori said her parents assumed she would attend university and completely supported her decision to do so. "And so I can, that's that. That's the major one."

Mark

In time Mark "realized that people in general weren't that much smarter than me." He recalled feeling that people with a

university education "had something on me, an advantage", and knew he wanted "to better things for myself." Once he resolved his career goals, he said university was the next step. He expressed much gratitude for a former girlfriend's parent for helping him make the step a viable one. Mark told of the person not only suggesting he get assessment for possible LD, but continuing to encourage him, not least by a substantial loan.

Ned

Ned first credited the parent who continues to help him with coursework and papers with being not only at university, but finishing graduate school. He likewise noted he had had "some very good teachers." Certainly not least he credited his "own determination, stubbornness, and positive outlook."

Terry

"It was just an assumption, wasn't really a choice. It was just a natural progression; you'd go from high school to university, that was the next step." "The other thought never occurred to me."

"Secondly I'd say, the prestige of it. Just the fact that I *can* go to university, just walking around with a smile on my face 'cause I'm here."

"I have this impression that university equals job."

Earlier Teachers

Most subjects spoke in general terms of some good teachers, only two specifically naming earlier teachers who used effective teaching methods and showed respect for their students. One teacher was a resource room teacher; the other taught practical mathematics. Ned was unequivocal in his praise of the resource room teacher, "My life would've been a hell of a lot harder without him." While Lori said of her mathematics teacher, "It's the only time I ever succeeded in math and that's probably why I liked it. I always went to class too."

Though all but one subject, with early diagnosis, talked about teachers being unaware of their LDs, some had vivid memories of early schooling that was worse than unaware and ineffectual. One woman recounted teachers calling her pejorative names and slapping her. A man told of a teacher who made him move books from one room to another; this book moving went on most of every schoolday for a year. All remarked on teachers having considered they (subjects) were not working hard enough, were lazy, stupid, passing them to be rid of them or because they felt sorry for them. And Kevin observed, "I rarely had a teacher who enjoyed teaching."

Betty

"I had a couple of teachers that were really bad . . . . a couple of good ones in high school."

She also talked about her husband's LDs, saying they are obvious, but that when he was at college, "he was passing so the college wouldn't permit accommodations."

Bill

Speaking of his early schooling, Bill said he was nearly held back in elementary school, being told he was "a poor reader." He also remembered the "pain in my stomach every day in junior high," and averred, "I don't recall writing any papers in high school." They passed me because they felt sorry for me. I'm very bitter about the education I received, the torment I went through."

"School counsellors and teachers, they may have passed away by now, but still I have a desire to prove them wrong--that I can do it."

Jean

Saying that as a child she felt "'so little and vulnerable" (even now Jean is a petite woman), Jean remembered "teachers calling me all kinds of things--lazy, stupid . . . ", and slapping her.

"They were glad to get rid of you (like other subjects, Jean often referred to herself in second person in especially emotional contexts), get her out of the class, pass her on."

Kevin

Kevin declared himself fortunate in the influences of family, friends, and acquaintances, saying however, that in school he "had no guidance whatsoever. I always wanted someone to guide me." He "rarely had a teacher who enjoyed teaching . . . you remember the few who were really good."

Lori

Reminiscent of Kevin's speculation that few of his earlier teachers enjoyed teaching, Lori said of an elementary school teacher: "I don't think she liked kids . . . I was scared of her." She remembered another teacher insisting she not write with her left hand: "Nonono, you write with your right hand."

In high school, Lori told of attaining average or good marks but getting expelled from classes because she rarely attended them. "That was the school's logic, not my logic. Teachers thought I was acting up, but I didn't have a clue . . . they think you're being lazy or whatever. So I figured out how to cheat."

"I had a bad attitude; I was a behavior problem . . . . I don't think anyone even thought of it [math help]." However in one non matriculation mathematics class, Lori had a teacher

who was "really good. It's probably the only time I ever succeeded in math and that's probably why I liked it. For once in my life it made me feel I knew something. I always went to the class too."

Mark

"Teachers liked me; they were frustrated I wasn't getting it."

Ned

Ned detailed his first nine years of school, citing "some good teachers, one really bad one", of which a few interesting items follow. In the private kindergarten he attended, "They knew how to deal with hyperactive kids." Next year he was assigned a teacher new to the profession; "I was always at the principal's office or writing 'I will not do this in class'." "I'd just copy the same word all the way down, then do the second word all the way down . . . , but I had no idea what the hell I was doing."

In grade two in a smaller group, with a teacher who "knew how to handle us", his "hyperactivity stopped." However, the next year he had a teacher who "hated my guts." "I'm moving books from one classroom to another, and I couldn't understand why everybody was learning and I'm moving books." Because he had of course missed class and did not know the work, she then "tried to fail me that grade, but the other

teachers wouldn't let her and had a meeting with the principal." "Grade four I had a very good teacher again . . . I learned a lot with her . . . different ways of teaching. She was very much into art."

From grades six through eight, Ned reported having had male teachers, "a totally different point of view." His first two years in junior high school, Ned said had a resource room teacher with whom he is still in contact. "He was a big impact on my life. The time I spent with him was very good." Other than him, "most teachers didn't know how to deal with me."

Terry

"I was encouraged by my counsellor to take . . . sciences [at university]; to this day I still don't know what I'm doing."

What Would Have Helped

Five subjects directly expressed the wish they had been diagnosed sooner. The one person who had been diagnosed in childhood voiced his conviction that this is a child's right. The remaining two addressed their specific difficulties saying, "I wish I could've read earlier," and "I wish sometime in junior high, somebody would've helped me with math."

Betty

"I wish I'd been labeled younger, then maybe I wouldn't be having the problems I'm having now." A further concern she expressed is that "education graduates still don't know anything about it [LD]." Many of the subjects voiced this same concern.

Bill

"I wish I had been diagnosed at an early age; I think my life could have been more enjoyable." In discussing his ambivalence about whether or not he should have been held back a grade, Bill suggested: "maybe advanced but with extra support."

Jean

Reflecting on one writer's speculation that some LDs may be the result of dysfunctional families, Jean remarked that, "it doesn't matter, when you look at all the reasonings; the bottom line is you still have a learning disability."

"I really wish I could've read earlier". In speaking of having only begun to read in the past few years, Jean's voice got very soft when she said: "For all those years I never read. It's sadness, that nobody picked up on that, that nobody ever noticed. I really wish somebody had."

Kevin

Expressing his ambivalence about earlier diagnosis, Kevin wished, "some mentor had known about [his] LD." But being prepared to take on the responsibility himself somewhat later, "In high school it might have made it easier for me to know why some things were unusually hard for me."

Lori

"I wish sometime in junior high, somebody would've helped me with math."

Mark

"What I would've had differently is patience. And the understanding that I'm not getting it because I don't understand it, not because I'm lazy. I'm not getting it *not* because I'm not trying; it just doesn't make sense to me."

Ned

"Maybe in the future I may have some regrets, but I don't now." Ned was the only subject diagnosed in early childhood; he had support both in school and at home.

Terry

"It would've been easier to think I might have an LD if the stereotype hadn't been there."

"I wish I'd been diagnosed earlier in university.'

Positive LD Effects

Interestingly, these very individual people were unknowingly in accord about positive effects of their LDs, more than in any other area. Seven subjects listed sensitivity to or awareness of others' needs as one positive result of their LDs. Those completing their teaching degrees were adamant about the benefits this would ensure for their future students.

Two positive LD effects frequently cited were the intent to use themselves as positive examples for others, and creativity or innovation in various areas. Creativity was expressed variously--many being involved in fine arts--usually in desirable ways. Sometimes though, creativity had earlier been shown in ways such as cheating by writing on one's thighs, or in inventing books for book reports. Although these latter two instances may not be considered desirable creativity, the three subjects involved with them were certain they were instrumental in their having finished secondary school.

Betty

Though Betty did not specify a positive effect of her LD, she did agree with the interviewer's suggestion that the resolute advocacy in which she engages for herself, her husband and her children is a positive effect.

Bill

After he is able to become comfortable with disclosing to students, Bill "hope[s] I can show them that 'I have this problem and here I am.' Perhaps they'll make it to this level, but maybe they'll go further."

Jean

Noting that for her, there have been positive results of her LD, Jean talked particularly of her oral communication skills. "It's forced me to become more verbal. I actually do really well in presentation work. It's forced me to have this outgoing personality, because I was always bluffing my way through like I know it."

"I'm a keen listener; I can pick up things really quick, almost intuitively. I know I can persuade people, get people to pay attention to me, if I talk, not if I write."

Kevin

In considering positive effects of his LDs, Kevin said, "It makes me sympathetic . . . more in tune with anybody that has to go through it. It's made me aware of the work needed. It makes me want to give to people."

He also averred, "I find I probably have more drive than my [siblings]."

Lori

Commenting on her earlier school experiences, Lori declared, "I will not do them to any other kid; I'll be the most reasonable teacher going. I can always find another way to do things."

Mark

"I've gotten to know what my strengths are, and I've gotten to know my limitations."

Ned

"I look at challenges differently, confront & overcome difficulties in unconventional ways."

"I've met more people and can see things from their perspective. The LD has kept me humble. Without the LD I would be a *#!*~, very very aggressive."

"A lot of thinking in management, in fine arts, comes from people who are disadvantaged, people with not the standard way of looking at things."

Terry

From her own experience and PSLD strategies that she has learned, Terry said she is able to help her friends, being frequently called on by them to suggest different approaches to problems.

Why Did You Participate in this Study; Any Benefits?

When queried as to why they had volunteered for this research and what if any benefit they had obtained from the interviews, subjects variously expressed altruism and gratitude. Most subjects indicated a wish to help others with LDs; to a great extent this was predicated on the support they had received from PSLD. The perceived benefits from the interview process varied with each person, but predominantly were the opportunity to discuss their LDs freely, and to clarify their own thoughts about themselves and their LDs.

Betty

Over the years, Betty had undergone much counselling to resolve issues, such as the relationship with her parents, not directly related to her LD. Her reasons for participating were primarily altruistic, though discussing her LD was also important. "I've gone to counsellors and talked about my feelings and that, because I wasn't raised in the best family in the world, so I was already aware of a lot of things. Getting involved with this is a good thing. And I get to talk about myself a lot. Just because you're learning disabled, doesn't mean you can't do it."

Bill

Bill had suffered self-consciousness and feeling inadequate through most of his life; his negative view of himself extended to not only his reading difficulties, but to his appearance, his formal education, his overall worthiness. Happily, his self-perception apparently improved during the interview process. "After our last meeting, I had a kind of release, an ease; I carried it the whole week . . . . I just felt relaxed and good about myself. I feel so much better about myself, I feel like going in front of the class and telling them what it's like to go through school as a person with a problem."

"I've grown from it; I mean it--bigtime. This has been a positive experience for me . . . I'm not as hard on myself as I was . . . I'm still a good person, regardless of the marks."

Mindful of his own struggles, Bill wanted to ease those of other LDs, "I just think it's important for others to know they're not alone with their problem." This combined with his gratitude, "I'm so thankful for the LD program here that it's kind of a payback. If it wasn't for [them] I wouldn't have gone on."

Jean

Also acknowledging PSLD, Jean outlined the reasons for her gratitude: "A lot of credit needs to go to disabled student services; it's changed my life. But it's not just the skills, it's

the emotional things they teach. You don't have to be scared to say 'I can't do this'." "I wouldn't be here today if people didn't help me . . . should put back into the service what I use. I'm really glad you're doing this study and I think it's important."

Realizing that, "One of the things that really shocked me in this whole thing is that I still don't read and I still don't write a lot", one of Jean's ambitions now she's graduated is to read books she was previously unable to.

Kevin

Increased self knowledge and acceptance and using himself as an example to other LDs were Kevin's primary reasons for, and professed benefits from, the interviews: "The more I do studies for others, the more I understand myself. The more I know about myself, the more I accept myself."

"I want to help others because I don't want them to go through what I went through. You've given me an opportunity to tell other people 'Hey smarten up out there. This is what's happened to me and it's not a big deal.'"

"[It's been] an opportunity to keep remembering where you are now and where you were before. That helps to encourage me."

Lori

Altruism was Lori's main reason for volunteering: "I thought I could help someone else out . . . and I didn't know if too many other people would want to talk about it [LD]. I realized that some people are *very* self-conscious about it."

Enhanced insight into her feelings and behaviors were among the process benefits Lori indicated: "I never really sat down and thought . . . about all the things I used to do to get around things . . . how much I used to cheat. It's kind of amazing I got through high school. I never realized why I avoided math, how much I hate being put on the spot . . . . I would get sick . . . just to avoid math."

"It was good to bring up some of these things. I never really thought about them."

Mark

Continuing as forthright as he had been throughout the interviews, Mark said that he volunteered, "to help Marion and her students here [at PSLD]. I believe this work is very important . . . people that read it and take it seriously . . . will find another aspect of people with learning disabilities--we're not lazy, we're *not* not trying; we just can't do it any better."

Mark also avowed his thanks for the interviews, particularly in enhanced self knowledge, with: "A lot of gratitude . . . I feel kind of emotional saying this, I feel a

cleansing . . . . I was able to talk about stuff . . . to somebody that wanted hear it."

"I have a better perspective of what I went through . . . . I'm very grateful for the process; it's been almost a therapy."

Ned

The altruism continued with Ned's, "It's important. I thought maybe I could be a positive influence and . . . help somebody else down the line. Talking about my learning disability and what it's done in my life."

In reflecting on any benefit he might have attained, Ned expressed his increased self understanding uniquely, "You start to understand the core competence of this person . . . . There are similarities between LDs, and between you and me."

Terry

Terry laughingly declared her reason as, "It's kind of a prestige thing . . . I'm telling my friends in school."

Becoming solemn, she said, "I'm starting to understand how I think, what I think about certain things. It helps me for organizing information. I can put it [feedback] together with other information and kind of come up with the definition [of LD] I need. I'm able to kind of understand, and to talk; now I'm not worried about people knowing I have an LD."

Summary

It is clear than having a learning disability significantly affects peoples' lives. It is also clear that the eight subjects in this study favour early diagnosis of the difficulty. Their reasons were stated variously, but emphasize accenting their strengths, compensating for their weaknesses, enhanced self esteem, and access to assistance.

Exhibiting a multitude of disabilities, problems in reading and writing were most common for these people. For most, there were family members with similar difficulties. Although all were grateful to most of their professors for their cooperation, much earlier schooling was recollected as primarily negative.

Studying in divergent disciplines and from an array of backgrounds, subjects nevertheless cited creativity in many guises as the most common positive effect of their LD.

Thankfulness to PSLD and a wish to spare others some of the emotional pain they had experienced were the reasons most subjects gave for volunteering for the study. Enhanced knowledge of themselves was what they most valued from the introspection and discussion involved.

CHAPTER V

DISCUSSION of RESULTS

Introduction

In both the larger population and those in post secondary studies, there are people with unusual difficulties in reading, writing, mathematics, or attention. These are people at least normally intelligent, whose difficulties are not attributable to any other difficulties, such as sight, hearing, or social impairments, they may have. Many, including the subjects of this study, have a learning disability (LD) and/or attention deficit disorder (ADD/ADHD). Both difficulties can have far-reaching negative consequences, including higher early school leaving, underemployment, and higher incarceration rates than in the general population (Richardson, 1994; Smith, 1991). From childhood on, the manner in which the LD is dealt with influences education, employment, lifestyle, and self-worth (Pompian & Thumbe, 1988; Smith, 1991).

Both specific learning disabilities and attention deficit disorders are concepts inundated with controversy. The controversies include lack of universal definitions, nonconsensus on cause and treatment, and whether people

experiencing these difficulties should be told they have a learning disability (Moats & Lyon, 1993). Discussing etiology for instance, Selikowitz (1993) notes that though brain damage was earlier posited as the likely cause of LDs, there is no proof of this. The literature overall does make it clear, however, that LDs are lifelong and ADD/ADHD generally is; further, both have a tendency to run in families.

The paramount indication of an LD is a decided dissimilarity between seeming ability and actual accomplishment. Difficulties in literacy and numeracy are often exacerbated by difficulties with time management, organization, and attention (Whyte, 1989). As early as elementary school LDs may be considered lazy, indifferent, obtuse (Murphy, 1992). Later, employment may be even more difficult than school, due to diversity, uncertainty, and ambiguity in the work site (Murphy, 1992).

However, with suitable accommodations, many learning disabled persons aspire to, and complete postsecondary and graduate studies (Adelman, O'Connell, Konrad, and Vogel, 1993). For them to succeed at this, LD support services are often necessary. As well as counselling and advocacy, such support services help students master effective and independent study. For the majority of LD students, who have not been assessed or diagnosed, this service is where they learn of their

LD, of why things have been inexplicably difficult for them. This study investigated university students' perceptions of their learning disabilities and how the disabilities have affected and continue to affect them. Subjects were either currently using LD support services or had used them earlier in their university careers.

Discussion of the Study

Using a thirty item guide investigating how having an LD affects people and how they and others deal with the effects, three interviews were conducted with each of the eight participants. The first interview began with introductions to both the interviewer and the intended research. Taping protocols were arranged, using a verbal request and consent to audiotape. During second and third interviews, new areas were addressed; as well, preceding interviews were clarified by both parties and validated by interviewees. Data were eventually analyzed both pooled and individually.

Because interviews were usually scheduled considerably in advance and LDs often have difficulty with time management (Selikowitz, 1993; Whyte, 1989), all subjects were phoned the evening prior to the initial interview. One subject also requested a reminder before the second interview, but otherwise

the initial reminder was the only one. Impressively, there were no missed interviews, nor did anyone opt out.

Subjects were from diverse backgrounds, from families with two, one, or step-parents, from abusive and supportive families, from public and separate schools, and from many socio-economic levels. Subjects volunteered for this study in equal gender numbers; the PSLD director indicated this is also approximately the gender ratio in the program.

While exhibiting a multitude of disabilities, problems in academic skills, especially reading and writing, were most common for these at least normally intelligent people. Needing more time than others, forgetting and misunderstanding, and continued self-doubt were also common. Most subjects told of family members with similar difficulties. It was evident that whatever the background, age, or gender, all faced many of the same difficulties related to their LDs. Further, they had these difficulties in common with the general LD population. Frustration and discouragement at lagging behind peers, and low self-esteem were manifest.

Those with supportive families or earlier diagnoses however, suffered LD related distress notably less intensely. They also had fewer early school failures and had begun university studies younger than subjects diagnosed in adulthood. The four people who either repeated a grade or

nearly did so in early schooling, have spent much of their lives thinking of themselves as failures. However, each of the eight subjects, with combined intelligence, support, and diverse innate characteristics, has overcome or is overcoming the notion of being a deficient individual. All persons in this study, despite learning disabilities, were successful in university studies. Nevertheless, difficulties with reading, writing, mathematics, and attention continue in both academic and social contexts, though all have learned and use compensatory strategies.

All subjects reported disclosing to professors, though many had attained autonomy enough to do so with discretion. Having gradually come to know their strengths and weaknesses well, some knew when accommodations would be unnecessary. As Mark said, "I don't want my degree to be given to me; I just want a fair chance to earn it." With the exception of a few unfavourable reports, all were grateful to most of their professors for their cooperation. Much earlier schooling, however, was recollected as primarily negative. As far as we know, subjects' LDs are as much part of them as the colours of their eyes or the shapes of their noses. The LDs are nobody's fault, they could not have been avoided, they simply *are*. But in many instances they might well have been dealt with more

beneficially, less destructively. Two of the areas subjects spoke of as being most important were schooling and diagnosis.

History of course, though it may be compensated for, cannot be corrected. However, it can serve as an object lesson, lest mistakes be repeated in future generations. All subjects directly or indirectly emphasized the desirability of early diagnosis. Ned spoke from experience, having had childhood diagnosis and support; a compilation of some of his comments addresses both positive and negative aspects of early diagnosis:

> Tell people, even when they're young. People have to know. It's not the kid's fault. As a kid you don't want to be different than your peers. You want to ignore it; you think it'll go away. *There's no reason why students can't learn.*

Many subjects were equally concerned about teacher education. They expressed indignation at how seldom general education students are alerted to potential LDs. Two previous teachers singled out for praise were not special education teachers, but were skilled teachers. Both of them seemingly respected and worked *with* the students, effectively using positive reinforcement, token economies, and no punishment. As Lahey and Drabman (1981, p. 430) note in discussing the use of token economies (with LD/ADHD youngsters in the classroom, "methods that improve academic performance also

indirectly reduce the frequency of behavior incompatible with learning. . . one can improve both academic and general behavior by improving academic performance."

In considering what they had gained from the process of the present study, subjects repeatedly stipulated their increased self-knowledge among the most important. This understanding, begun with their diagnoses, is eloquently described by Smith (1985):

> The frustrations of people with learning disabilities arise in large measure from lack of understanding--their own, and that of others. Many learning disabled adults have never been identified as learning disabled, and therefore, don't understand why certain things are so difficult for them to learn or do; in a very crucial way they don't understand themselves (p. 35).

Conclusions and Recommendations

Early Diagnosis

It is clear that having a learning disability significantly affects peoples' lives, most often in negative ways (Fargason & Ford, 1994). It is also clear that the eight subjects in this study favour early diagnosis of the difficulty. Their reasons were stated variously, but emphasized LDs acquiring the understanding to accent their strengths, compensate for their

weaknesses, get access to assistance, and enhance their self esteem. As Hayes (1994) points out, this may be particularly important for very bright, i.e., gifted, persons.

As children these individuals, if they stayed in school, likely did poorly, considering their potential. Because their intelligence may mask their disabilities, such persons often muddle through school without support and without real intellectual challenge either. Much of their schooling is clouded by frustration and embarrassment, and they may be seen as either intelligent students who are lazy or unmotivated, or students who simply are not academically capable of very much. These sorts of experiences had unquestionably permeated the earlier schooling of the current study's subjects. The Learning Disabilities Association of Canada (1991) contends that diagnosis, with subsequent labeling is necessary for effective teaching.

Definition

A key factor in early diagnosis is the need for a universally acceptable definition of learning disabilities (Malcolm, Polatajko, & Simons, 1990); this may also decrease the present associated stigmas. Reiff, Gerber, & Ginberg (1993) suggest this definition ought to include input from adult LDs, with their intimate knowledge of living with learning disabilities. Considering such things as inconsistent criteria,

and the differing disciplines involved ((Wright & Groner, 1993), a single definition may be not be practicable. It does however, merit investigation.

Schooling

Because early diagnosis, despite valid concerns appears desirable, increased awareness is necessary, particularly of teachers and education students. Subjects' earlier experiences indicated few of their teachers were alert to the possibility of students' LDs. Subjects, some of them education students, noted that little has changed in this respect. More than ever, with increased mainstreaming in earlier schooling, it is vital education students be taught to recognize possible LDs in their students.

Despite the more desirable teacher to student ratio and specially trained teachers, there are drawbacks to schools dealing exclusively with LD students. Social ineptness may be the most detrimental. There is usually a lack of sports and art, either curricular or extracurricular. At this point there are few female students, and no peer role models other than other LDs. (Mellard & Haze, 1992, p.251) "recommend that secondary and post-secondary curricular experiences include greater attention to improving social competencies." Further, given the importance subjects attributed to sports and arts, these activities may not be extracurricular; for many, they may be

vital to high school completion. Once high school is completed, LDs who choose postsecondary education often need LD services similar to those subjects of this study used.

Gender

Given the gender balance of present subjects and a similar ratio in PSLD, it is also recommended that the gender skewedness disparity between this study and many others be investigated. Wood (1985, p. 546) conjectures LDs, "may be as high among females." Fargason & Ford (1994) say there may also be more females with ADD/ADHD than previously has been recognized. There may also be more males with ADD. Because these youngsters are often among those who are noted as daydreaming, or not paying attention, but do not display disruptive behaviors, they may not be diagnosed.

That these possibilities warrant further research is borne out by two very different studies, both yielding LD gender similarity. In Mellard & Byrne's four year (1993) quantitative study of 1,400,680 students in 103 California colleges, they found approximately the same percentage of LD females and males. In the current qualitative study of eight Canadian university students, genders were also equally represented. As this contradicts earlier research in the field of learning disabilities, further research into ostensible skewedness is certainly in order.

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APPENDIX A

Interview Guide

1. What is your specific learning disability?
2. How old were you when you knew you had an LD?
3. How did you find out you have an LD?
4. Generally, how does your LD affect your daily life?
5. Have you had what you consider unusual academic difficulty?
6. In what way(s)?
7. Are you currently having academic difficulty?
8. In what way(s)?
9. [if 5 or 7] How do you or have you dealt with academic difficulties?
10. [if 9] What has worked?
11. [if 9] What hasn't worked?
12. How does your LD affect, or has it affected, your life socially?
13. How do you or have you dealt with this?
14. What has worked?
15. What hasn't worked?
16. How has having an LD affected you positively?

17. Is there anything we haven't covered about your LD, that you would like to add?

First answer or clarify as needed, questions from interview one.

18. How cooperative have you found your professors, regarding accommodations?

19. Do you use or have you used any medication or other therapy for your ld?

20. Why did you agree to help in this study?

21. Are you comfortable about my thanking participating U of A students & SSD staff?

22. Are there other members of your family that have, or that you think might have, LDs?

23. What about your earlier teachers and their attitudes? How did they deal with you?

24. What would you say are most important factors in your being at U of A, despite having an ld?

25. What is the single most important negative impact of your ld?

26. Is there one thing that didn't happen, you wish *had* happened relative to your ld?

27. What is your most important wish, or hope for your future?

First answer or clarify questions from interviews one and two, as needed.

28. How typical would you say, are you of learning disabled students on campus?

29. Give me a verbal sketch of yourself. I'm going to meet X and need to know as much as possible about him (or her), so tell me everything you can to help me please.

30. What, if anything, have you gleaned from our meetings?

APPENDIX B

Explanatory Letter

To: U of A Students with Learning Disabilities
From: Julia Nielsen, Education Policy Studies
Re: Learning Disabilities Research Participation

Just BEING a university student indicates your own success in dealing with your particular difficulty. As many of you know, much has been written about children with learning disabilities. However there is *very* little about adults. That's where you come in.

Research is needed on your personal view of living with your LD. What problems have you encountered? How did you deal with them? What works, what doesn't? How do other people deal with your LD? Are there positive aspects of having an LD?

A graduate student in adult education, I am doing my research and thesis on the effects of learning disabilities on adults.

I'll talk privately with each of you participating; Marion has agreed to our using the SSD office. Your anonymity will of course be honoured, your name never appearing without your written permission. The 4-6 *total* hours needed will be accommodated to *your* schedule. Please sign up with Terry, here at the SSD office; Terry will also take messages if you'd like me to call you.

If you have questions, send a note addressed to me at Education Policy Studies through campus mail or e-mail me at jnielsen@gpu.srv.ualberta.ca

Thank you for agreeing to be part of this research. Your experiences will benefit both adults with learning disabilities and those with whom they interact.

I look forward to meeting with you,

Julia Nielsen

APPENDIX C

Consent Form

Thesis Title: Adult Students' Perspectives on the Academic and Social Effects of Their Learning Disabilities

Researcher: Julia A. Nielsen
University of Alberta
Faculty of Education
Department of Adult and Higher Education

This is to certify that I agree to participate in the above study. Having been contacted by the researcher, a graduate student in the Department of Adult and Higher Education, I understand that:

1. The purpose of this study is to determine how learning disabilities affect adults.
2. My name will not be disclosed at any time during this study or used in the resulting thesis.
3. Any information I provide to the researcher will be kept confidential and used solely for the purposes of this research study.
4. I understand and agree to the interviews being audiotaped.
5. I am participating in this study on a purely voluntary basis. Therefore, I have the right to quit or refuse to participate at any time.
6. The results of the study will be made available to me if I so request.

7. I have been fully informed as to the nature of the study and my involvement in it.

8. The thesis this study leads to will be available for examination at the University of Alberta Library.

Signature of participant_____

Date_____